

THE CALLIGRAPHY OF MEDIEVAL MUSIC

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1

Collection dirigée par
Olivier CULLIN

John Haines (ed.)

The Calligraphy of Medieval Music

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Introduction

This volume of essays would not have appeared without funding from the Canada Research Chair (CRC) programme. Around the year 2000, when I was working at a small college in the South of the United States, but actively looking for a research position, Canada instituted a – so far as I know – unprecedented programme of academic chairs. These were actually one-time renewable grants: five plus five years for junior appointments, a so-called Tier II (CRC II), and seven plus seven for senior hires. The objective was, as recently explained to us in a conference celebrating ten years of the CRC programme¹, to prevent the traditional ‘brain drain’ of Canadian academics to foreign lands and to secure productive young researchers for the future. The scheme appears to have worked. At a time when academia suffers internationally along with many other institutions, Canadian universities still maintain a healthy international research profile. Although it was cut short following the 2008 financial collapse, the University of Toronto’s Medieval Music CRC II came to me in 2002 as a great privilege. Among other things, it provided funding for a project called *Nota Quadrata*, devoted to the origins of the so-called square notation of the Middle Ages.

In the early days of thinking about the *Nota Quadrata* project, it occurred to me that a volume of contributions by senior scholars dedicated to the question of the origins of square notation might be useful. That is how this volume came to be. When I first approached Michel Huglo with the idea in the early days of 2005, he kindly offered to help identify the appropriate experts on different musical scripts of medieval Europe. At the time, Michel was a remarkably energetic eighty-three years of age, and the first of no less than four volumes culled from his half century’s work on medieval music had just appeared.² As I write, Prof. Huglo will celebrate his ninetieth birthday on 14 December 2011; this volume celebrates that occasion. In May 2005, he and Albert Derolez led a session devoted to late medieval music writing under the aegis of *Nota Quadrata*, at the International Congress on Medieval Studies, in Kalamazoo, Michigan. Following this, thanks to Huglo and another eminent medievalist, David Hiley, I began the work of organizing a conference entitled ‘The Calligraphy of Medieval Music’, which eventually took place at the University of Toronto’s Trinity College on 21-23 September 2007. Most of the contributors to the present volume participated in that event. In addition to the CRC II, major funding for

1. « Canada Research Chairs: Thinking Ahead For a Strong Future », Conference series, Ontario region, November 24-25, 2010, Metro Toronto Convention Centre.

2. HUGLO 2004 and HUGLO 2005, p. 1-3.

the conference was provided by Gage Averill, then Dean at Toronto's Faculty of Music. As director of the university's Centre for Medieval Studies, and later, Provost of Trinity College, Andy Orchard also provided personal and financial support. Other sponsors included the University of Toronto's Book History and Print Culture Programme, the Department of Near and Middle Eastern Civilizations, the Fine Art Department, Victoria University and the University of Toronto Art Centre. I am especially grateful to Meghan Forsyth and Keith Johnston, then graduate students at the Faculty of Music, who helped me in the organization of the event.

This volume was already in the planning stages before the conference took place, and was conceived essentially as a written version of that event. I must confess that its publication has not been an easy task. If it had not been for Olivier Cullin, this volume would surely not have seen the light of day. I am deeply indebted to him for all of his work from 2007 to 2011. Prof. Cullin worked hard to defend the merits of the proposed volume to the Belgian academic publisher Brepols, who accepted it late in 2008 as the first in their new music series, *Musica Mediævi Aevi*, headed up by Cullin himself. Publishing academic books is a difficult and generally tedious experience, especially books consisting of essays by different authors. During the two years it took for all of the contributions found in this volume to come in, I was fortunate to receive the help of Kate Helsen, then a post-doctoral fellow at the University of Toronto. I am grateful to Kate for helping me in the thankless work of re-formatting essays and making corrections of many *minutiae*. I am also, of course, grateful to each and every one of the contributors (and even to a few who bowed out at the last minute), and especially to those who submitted their essays on time, carefully formatted following Cullin's guidelines for the series.

It is common in prefaces such as this to summarize each contribution at length, but this seems to me superfluous. The chronological ordering of the volume is transparent, and follows the schema that Michel Huglo, David Hiley and I originally planned for the volume. The following essays aim at surveying the dominant types of music writing in Europe in the Middle Ages, with a focus on writing style and technique. Part one opens with general considerations: writing (Huglo), layout (Derolez) and the traditions of Ethiopia as a helpful comparison with the medieval West (Haile). Part two treats early medieval notations from England (Rankin), Brittany (Deuffic), Spain (Zapke), Italy (Baroffio), Northern France and Sicily (Hiley) and Aquitaine (Huglo). And part three continues this chronological journey with the late medieval notations of Chartres (Fassler) and Cambrai (Haggh), and those of the Carthusian (Cullin), Dominican and Franciscan orders (Huglo); special topics within late notations include 'ligatures' (Haines), the production of the manuscripts of Guillaume de Machaut (Earp) and, finally, the *Ars nova* (Busse Berger). Needless to say, individual topics are approached from each author's singular point of view, which is hopefully what makes this volume interesting.

My choice of the word 'calligraphy' may seem odd to some – as it did to one of the contributors who wondered out loud during her talk what exactly I meant by 'calligraphy' – and warrants a brief explanation. 'Calligraphy' means beautiful writing. This best describes musical notes. Musical notation may relate to sound, and we may be tempted at times to extract long lost sounds from it or to extrapolate other meanings from it; but it is, first and foremost, a graphic phenomenon, the product of specific processes of writing and bookmaking. The word 'paleography' (or 'palæography'), following an archaic practice along the lines of 'Mediæval' carries with it the baggage of centuries of scholarship. From Jean Mabillon to the monks of Solesmes, the study of medieval writing has a distinguished

pedigree.³ Too often in this scholarly tradition, an obsession with semiotics – how the notes were or presumably should be interpreted – has taken precedence over a study of its purely graphic aspects. The monks of Solesmes' Romantic enterprise the *Paléographie Musicale*, for example, ostensibly aimed at the study of old writing, apparent in their title's first word, 'paléographie'. However, one need only open the first volume of this series, published in 1889, and skim through the opening pages to see that an obsession with the semiotics of music dominates the discussion.⁴ The philology, in André Mocquereau's now antiquated expression, or semiotics of medieval music would prevail throughout the twentieth-century study of medieval music writing. Still in the 1980s, Leo Treitler would assert the need for medieval musicology to 're-orient from the paleography to the semiotics of music-writing'.⁵ But semiotics, rather than paleography, had always been there, under one name or the other. This volume, then, aims to fill an improbable lacuna: the study of the graphics of music, of notation as calligraphy.

Lastly in this preface, I cannot forget to thank three individuals: Randall Rosenfeld, who inspired me to become interested in the practical aspects of medieval writing; Andrew Hughes who, among other things, came up with the simple but not self-evident label '*Nota Quadrata*'; and, as ever, my wife Dorothy Haines, who endured tedious rants about academic politics and the faults of others, and kindly emended this little preface to remove the bitter things.

JOHN HAINES
Easter 2011
Uxbridge, Ontario

BIBLIOGRAPHY

HAINES 2004 : Haines John, « Erasures in Thirteenth-Century Music », in John Haines & Randall Rosenfeld eds., *Music and Medieval Manuscripts: Paleography and Performance*, Aldershot, Ashgate, 2004, p. 60-88.

HUGLO 2004 : Huglo Michel, *Les sources du plain-chant et de la musique médiévale*, Variorum Collected Studies Series, CS 800, Aldershot, Ashgate, 2004.

HUGLO 2005-1 : Huglo Michel *Les anciens répertoires de plain-chant*, Variorum Collected Studies Series, CS 804, Aldershot, Ashgate, 2005.

HUGLO 2005-2 : Huglo Michel, *Chant grégorien et musique médiévale*, Variorum Collected Studies Series, CS 814, Aldershot, Ashgate, 2005.

HUGLO 2005-3 : Huglo Michel, *La théorie de la musique antique et médiévale*, Variorum Collected Studies Series, CS 822, Aldershot: Ashgate, 2005.

Paléographie Musicale I : Le Codex 339 de la Bibliothèque de Saint-Gall (X^e siècle), Antiphonale missarum sancti Gregorii, Paléographie Musicale, I, introduction by André Mocquereau, Solesmes, Abbaye Saint-Pierre, 1889.

TREITLER 1984 : Treitler Leo, « Reading and Singing: On the Genesis of Occidental Music-Writing », *Early Music History*, IV (1984), p. 135-208.

3. HAINES 2004, p. 60-61.

4. *Paléographie Musicale I*.

5. TREITLER 1984, p. 208, n. 140.

PART ONE
WRITING MEDIEVAL MUSIC

Toward a scientific palaeography of music

Despite a great flourishing in the second half of the twentieth century, the study of musical paleography has still not paid much attention to staved square notations of the Middle Ages. There are two reasons for this lack of interest. To begin with, late medieval square notations, as opposed to the strongly regionalized earlier neumatic notations, offer little help to paleographers in dating or localizing manuscripts. Secondly, square notation does not do justice to the various shapes of neumatic notation in groups of two, three or four notes (see fig. 1). This particular deficiency of square notation has been remedied in different ways. The 1934 edition of the monastic Antiphoner (*Antiphonale monasticum*) rendered the neumatic distropha, tristropha and oriscus with special signs; they were drawn by Dom René Renaudin, translator of the *Paleografia musical* by Dom Gregorio Maria Suñol. The 1966 edition of the 1907 Roman Gradual then introduced neumes which Dom Eugène Cardine drew above the square notes on the staff; this edition was entitled *Graduel neumé* (literally, *Neumed Gradual*). More recently, new signs were created for chant books edited after the Vatican II Council. These new notational signs were presented and discussed by Peter Jeffery in 1991.¹

It is important to stress that these notational improvements were designed for the modern performance of plainchant. These modern emendations raise several questions for the musical paleographer. Why did square notation not preserve ornamental neumes, especially since other staff notations, such as those of Rhenish regions in the twelfth century, preserved nearly all of them? Did square notation in its earliest phase continue to use some ornamental neumes? If so, when and why did they disappear? Only a scientific study of the origins and spread of square notation throughout Europe can provide an answer to these questions. As with any investigation into medieval history, it is up to paleography to date and localize not only writing but also musical notation. In our case, that of the study of square notation, the musicologist must also seek the help of codicology.

CODICOLOGICAL INVESTIGATION

Codicology – which co-founder of the journal *Scriptorium* François Masai calls ‘the archeology of the book’ – studies the material support for writing, that is to say: parchment,

1. JEFFERY 1991, p. 1039-1063 and Figure 1 (p. 1055).

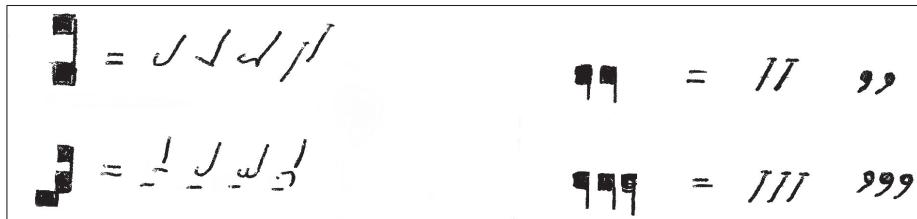


Figure 1. Simple and compound square notes and their neumatic ancestors.

including type, color, and method of preparation; the pricking of the margins or other markings made prior to ruling the folio; the process of ruling which varies according to the kind of text to be copied, such as the difference between a Homiliary and a book of the Bible with marginal and interlinear commentary known as *Glossa ordinaria*; and finally, the folding of the parchment into gatherings. I do not need to discuss here the steps of pricking and ruling prior to writing, since these have been studied by scholars such as Denis Muzerelle from the Institut de Recherche et d'Histoire des Textes in Paris,² Léon Gilissen from the Royal Library in Brussels,³ and Jacques Lemaire, from the Catholic University of Louvain.⁴ Instead, my remarks will concern the ruling conditions proper to the production of manuscripts with music, a question which previous work has not considered.

The Placement of Staves

In the earliest stage of neumatic notation introduced in liturgical chant books in the beginning of the tenth century, the pricking and ruling of chant manuscripts did not involve any deviation from standard ruling procedure. Indeed, because neumatic notation *in campo aperto* had to fit between two lines, as for example in certain German lands or in Northern Italy,⁵ the music scribe, writing after the text scribe, had to shrink the size of neumes in antiphons and responsories, and write them obliquely. In chant books from the Southwest of France (Aquitania, Limousin, Provence), the standard ruling of lines was used differently. The text of sung pieces was written out on every other line of the available ruling so that the spare line could become the axis for the heighited notation.⁶ This remained the practice in Limoges at the end of the twelfth century, but with two modifications: the notation's middle line was drawn in red ink and the earlier round notes or *puncta* became little squares either with or without tails.⁷

In Italy, Franciscans made use of the existing ruling by writing the text on every fifth line and by using the four intermediary lines for notation,⁸ which made their music books

2. MUZERELLE 1985. For references to translations of this book into English, Italian, and Spanish, see <http://vocabulaire.irht.cnrs.fr/vocab.htm>.

3. GILISSEN 1977, p. 123-237.

4. LEMAIRE 1989 with a comprehensive bibliography on the subject (p. 207-230).

5. Particularly at Saint-Gall (the well-known notated manuscripts of the Stiftsbibliothek, mss. 338, 339, 340, 342, 343, 359, 361, 374, 375, 376, 378, 380, 381, 382, 384, 390-391 are directly accessible on the internet), and at Monza (Monza, Biblioteca capitolare, ms. C. 12/75, f° 95v, facsimile in HESBERT 1963, pl. V).

6. Brussels, Bibliothèque Royale, ms. II 265, fragment of a gradual from St. Michel in Cuxa, near Narbonne (Collection of Edmond de Coussemaker).

7. Paris, BnF, ms. lat. 1086, f° 36v.

8. Rome, Archivio Centrale dello Stato, San Salvatore, ms. 1001, as in VAN DIJK 1960, p. 257-314 (pl. 23).

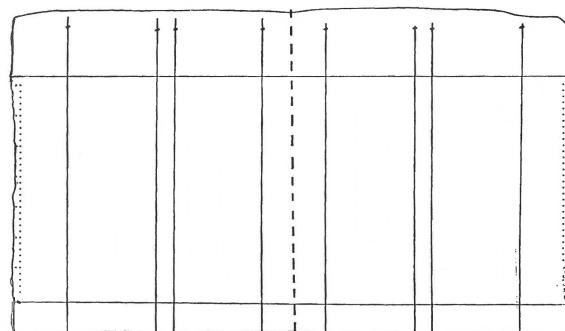


Figure 2. Ruling pattern in London, British Library, Additional ms. 29988, Antiphonal of Old Roman Chant (see HUGLO 2007).

quite comfortable for sight-reading. In the production of Franciscan books, the person preparing the parchment – the *pergamentor* – produced the marginal pricking in the usual way, with a pricking wheel, with the difference that he then added by hand a second point every five lines to show where the text should be written (fig. 2).

These few random examples show that the adoption of square notation on a staff of usually four lines, though sometimes five in Spain and Portugal,⁹ did not always alter local ruling practices. Nevertheless, a study still remains to be done on rulings specifically made to receive staves with square notes.

This enquiry should be rounded off with an examination of how the large parchment leaves that made up books were folded; if three times, the result was a quaternion. Certain scriptoria maintained the practice of pricking and ruling two folios at a time, whereas in other writing centers, the two steps followed each other leaf by leaf. But this procedure is less important than that of assigning space on the folio for musical staves.

Drawing Four or Five-line Staves

Guido of Arezzo's creation of the musical staff was indebted to earlier theorists, in particular the author of the *Musica* and *Scolica enhiriadis* who, according to Dieter Torkewitz, was Hoger, Abbot of Werden who lived at the end of the ninth century.¹⁰ To explain the rules of parallel organum, the author drew two rows of eight parallel lines, like a row of strings on the kithara, with each one assigned a clef-letter; he then distributed the text on the different lines corresponding to each syllable's note.¹¹ Guido of Arezzo had read and digested the *Musica enhiriadis* and, though he did not cite his source, borrowed from it this idea of a row of 'strings' which he pared down to four since he used both the lines and the spaces between them. Each line of this four-line staff or tetragram bore a clef-letter from A to P taken from alphabetical notation and used in music theory.¹² But, instead of distributing the chant text

9. HUGLO 1999-2004, I (1999), p. 289-322, and II (2004), p. 395-429. See VILARES CEPEDA & DUARTE FERREIRA 1994-2001.

10. TORKEWITZ 1999 reviewed by PHILLIPS 2000.

11. SCHMID 1981, p. 51, description 1. Transcription into modern notation by ERICKSON 1995, p. 28.

12. See COLK SANTOSUOSO 1989.

over the individual staff lines, which is impractical for an entire Antiphoner, he copied the text below the staff and distributed the neumatic notation, both on and in between the lines.

At the end of Guido's staff, a small oblique sign – the *custos* – indicated the height of the first note on the next staff below. This sign was not an innovation. For we find it already in Italian and Aquitanian notations which verge on being diastematic, that is, which varied the height of the notes according to the interval to be sung. This tendency appeared as early as the tenth century, in both select neumatic notations and in treatises of music theorists such as Hucbald of Saint-Amand.

Guido's second debt to the *Scolica enhriadi* was the use of colors which, in the diagrams in the Werden manuscript of the *Scolica*, were reserved for the placement of the semitone. Guido of Arezzo assigned the color yellow to the line reserved for the pitch C, a half step above B natural, and the color red to the line for F, a half step above E.¹³ This new notational system, which cut the time needed for repertoire memorization by about ten years, met with instant success, for Guido was invited by Pope John XIX (1024-1033) to present his method to the Roman *Schola cantorum*. Indeed, the first datable witness to the Guidonian colored staff is the Gradual of Santa Cecilia del Trastevere.¹⁴ This copy was finished by John the priest in 1076, barely four years before the dedication of the main altar by Pope Gregory VII on 8 June 1080.

The colored, so-called Guidonian staff spread to Southern and Central Italy, notably in Vallombrosa, the Benedictine congregation to which Guido belonged; to Lorraine and from there to Klosterneuburg; to Rhenish lands, although not in Bavaria except for a few manuscripts of music theory; and finally to the Rhone valley and Northern Italy.¹⁵

But in the thirteenth century the tri-colored staff was replaced by four red lines, especially in Franciscan circles, where the Central Italian notation used in their earliest books soon gave way to square notation. Under the pontificate of Nicolas III (1277-1280), protector of the Franciscans, the Roman Curia adopted the liturgy and chant used in the Order of the Minor Friars. As for the Dominicans, from the very founding of their order in Bologna they began using square notation on four red lines in their chant books. In their 1254 regulations on the making of these books, they added to this practice that of vertical strokes or bars of division and double bars of intonation to facilitate choral singing.¹⁶

It is not possible here to trace the development of the colored staff in Europe and to linger at the changes of color in the staff adopted, for example, in certain Lorraine centers (black staff), in Normandy and in Chartres (a green rather than a yellow line for C), in Saint-Amand-en-Pévèle or periodically in Great Britain (one line in blue). One would also have to comment on the growth in size of the staff in lectern books, a consideration which inevitably leads to the conclusion that the larger the book, the fewer the staves.¹⁷

Rounding off this section on codicology, I must briefly discuss the use of the *rastrum* or rake with four quills which allowed one to draw, in a single sweep, a stave with four red or black lines. Based on my observations, the *rastrum* does not appear to have been used to draw staves in plainchant manuscripts prior to the fourteenth century. There is no question that it was used in the *Roman de Fauvel*, written and decorated in the Cité, to draw staves of five short lines inserted in one of the three columns on each page. The

13. SMITS VAN WAESBERGHE 1953, p. 56-85, and the plate facing p. 48.

14. LÜTOLF 1987 reviewed by HUGLO 1990.

15. See especially the list of manuscripts in SMITS VAN WAESBERGHE 1953, p. 53-60, also F-Pn lat. 12272 (gradual fragment, 12th c.). For Klosterneuburg, see *Paléographie musicale XIX*, p. xxxix, and HUGLO & HAGGH 2008.

16. See my chapter on the notation of Dominican and Franciscan liturgical books in this volume.

17. See the table of the dimensions of twenty-four antiphoners in HUGLO 1988, p. 95, Tableau IX.

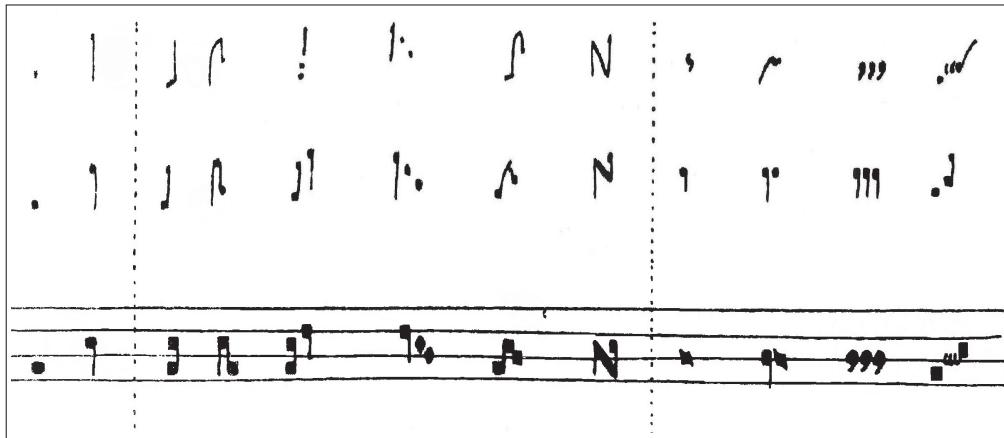


Figure 3. Notes in Orléans, Bibliothèque municipale, ms. 201.

compilers of this extraordinary manuscript, where responsories of plainchant alternate with *Ars nova* motets, did not have the option of switching from four-line staves for plainchant to five-line ones for polyphony. Consequently, all of the pieces of chant were notated on short staves drawn with the *rastrum*. In other contemporary chant books, the staves were painstakingly drawn line by line by a rubricator before the notator took over.

In sum, the invention of neumes at the end of the ninth century and the invention of the four-line staff by Guido of Arezzo did not change the utensils or the methods of preparing quaternions that were destined for chant books. The *pergamentores* – the preparers of parchment gatherings – simply adapted the practices of their profession to the needs of these new inventions with remarkable shrewdness.

THE PALAEOGRAPHIC STUDY OF SQUARE NOTATION

In the oldest manuscripts of chant, the one who draws the neumes with all of their subtle nuances is a cantor; such was Guido Oacrius at Saint-Maur-des-Fossés, who is called *cantor atque notator*. The same practice obtains in the square notation era. This is clear from a comparison between notated liturgical manuscripts and contemporary manuscripts of chant treatises using examples borrowed from plainchant, where both notation and texts were hastily written out on staves drawn free-hand. Such is the case with the *Musica* treatise by the Dominican Jérôme of Moray (Jerome of Moravia).¹⁸

In fact, it was the cantor who, whether consciously or not, kept up with the trend of an increasingly precise notation in *diastema* or height, first without lines and later more accurately on a staff. There was an obvious link between French neumatic notation written on a vertical axe and square notation. By thickening the head of the *virga* and *punctum*, the notator soon ended up drawing perfectly geometric forms, such as squares, rectangles and lozenges. In the collection of liturgical dramas Orléans, Bibliothèque municipale, ms. 201,

18. On Paris, BnF, ms. lat. 16663, see HUGLO 1992, p. 33–42, facsimile of fol. 81^r just before p. 7, and HUGLO 1994. These two articles are reproduced in HUGLO 2005-2, essays XIV and XV.

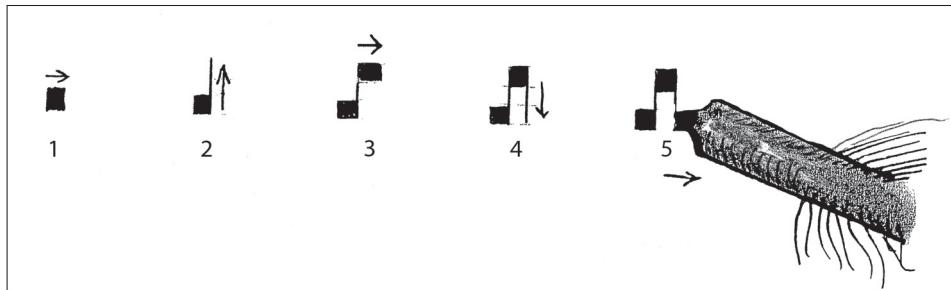


Figure 4. The five steps of drawing the square-shaped *torculus*.

probably compiled in Paris around 1170,¹⁹ a goose quill produced cursive notation that lightly supported the square on the right side, with the other simple neumes written as usual but now placed on a staff (fig. 3). This is not an isolated example. We find the same cursive notation in the Vatican organum treatise written in Paris around 1160/1170. The manuscript 3025 from the Ottoboni collection²⁰ is a sketch made prior to the definitive 'edition' of which Michael Bernhard has found another copy in Cashel, Ireland.²¹ The same tendency towards small square points is found in manuscripts from Normandy.²²

Indeed, square notation's place of origin is as difficult to pinpoint as that of Caroline minuscule script at the turn of the eighth and ninth centuries. Local variants of the square shape – in the cathedrals of Chartres, Amiens and Paris, in Rouen and in the Sarum Rite, in Lyon and Northern Italy – do not support an argument in favor of one location over another. One must note that in Paris, the inventory of the Sainte Chapelle by Symon de Braelle (1341) distinguishes the smaller *gracilis nota* from the square notation commonly used in large choir books and in missals ruled in two columns.²³ But this distinction refers to a difference in size and has no chronological importance.

Future paleographers will need to confirm whether the adoption of square notation was prompted by the appearance of the metal quill in scriptoria at the beginning of the thirteenth century or, rather, whether this larger notation was produced with the traditional goose quill sharpened to a broader nib than usual. Either way, the writer of square notation used a wide-nibbed quill of some sort which he moved either horizontally to draw squares, or vertically to draw tails on the virga or stems connecting the two notes of the *podatus* or *clivis*, the three notes of the *torculus* or *scandicus*, and so on. But the study of the paleography of musical notation is equally concerned with the observation of the *ductus*, that is, the manner of drawing such neumes as the torculus, as shown in figure 4.

In the *climaxus*, the square gave way to the lozenge; either a regular lozenge (*elmuahim* in the wording of the Latin version of Euclid after the Arabic by Adelard of Bath) or an

19. HUGLO 1985, p. 51-78, pl. XV and XVI, reproduced in HUGLO 2005-1, essay XIV.

20. ZAMINER 1959.

21. BERNHARD 2001.

22. Especially in the tropes-prosers, Madrid, Biblioteca Nacional, ms. 288 (a.158), with staff drawn with four dry-point lines at the beginning of the twelfth century. The manuscript is described in ANGLES & SUBIRA 1946, p. 36, no. 20 and facs. VII.

23. VIDIER 1911, p. 12: *item alii quinque antiphonarii in gracili nota*. Since the antiphonaries of the Sainte-Chapelle disappeared during the French Revolution, it is important to mention here the Genealogy of Christ from the Gospels of the Sainte-Chapelle, Paris, BnF, ms. lat. 8892, f° 16^r, reproduced in DURAND & LAFFITTE 2001, p. 149-154, no. 35.



Figure 5. The *elmuhahim* and the *elmuarifa* of square notation.

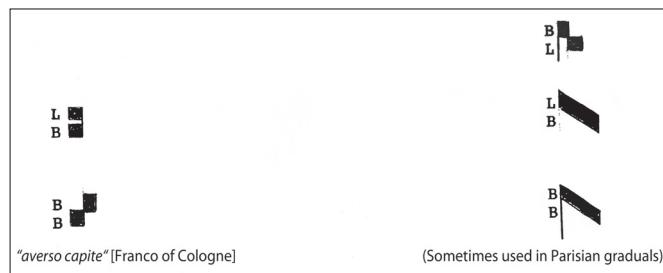


Figure 6. Two-note shapes of mensural notation, including the *podatus averso capite*.
(Sometimes used in Parisian graduals)

irregular lozenge (*elmuarifa*),²⁴ both forms resulting from slight changes in the angle of the quill (fig. 5). The difference between these two forms takes on an important meaning in the notation of the *currentes* of Parisian polyphony. But in plainchant notation, we find the two types of lozenge together apparently without semiotic differentiation; it is simply a question of practice, which varies from one notator to the other.

The notation of liquescence between two liquid or dental consonants, so common in neumatic notation, is not often found in square notation, especially after the fourteenth century. The two forms of liquescence, the *cephalicus* and *epiphonus*, are assimilated into Franconian notation under the name of *plica*, but with their new mensural meaning they gradually disappear from books of plainchant. The same goes for ornamental neumes such as *quilismas* or composed neumes with the *oriscus*, and so on – all of these vanish from square notation.

The square notation from Aquitania and southern France retained the form of the *podatus* and *scandicus*, which was adopted in the earliest stages of heighted neumatic notation in the tenth century. These neumes were drawn in 'staircase motion', a feature that helps distinguish Aquitanian square notation from its later northern French counterpart.²⁵ One finds a related form of the *podatus* in Franconian notation: the *podatus* (signifying breve-long) with a reversed head (*averso capite*) that signifies two breves (see fig. 6).

In a manuscript from the Bodleian Library, we find a table from the end of the twelfth century which gives the correspondence between metric feet and the figures of modal notation.²⁶ Thus square notation is no longer the final phase in an evolution beginning with neumatic notation. Rather, square notation becomes the starting point of a second phase in its development, the notation of *musica mensurabilis*. In this new episode of vocal music history alone, we have a second argument in favour of the scientific study of square notation.

MICHEL HUGLO
Translated by John Haines

24. BURNETT 1986 : *elmuhahim* is a lozenge with the four equal sides; *elmuarifa* a lozenge with unequal opposite sides. See also HAINES 2006.

25. For example, the manuscript of the Library of Solesmes, Réserve ms. 28: this processional with Aquitanian notation of the fifteenth century (*podatus* and *scandicus* in « staircase motion »), is not a processional from Cluny, but a Cluniac processional from southern France. It is described in HUGLO 1999-2004, p. 58 (F-175).

26. Oxford, Bodleian Library, ms. Bodley 77, reproduced by HUGLO & PHILLIPS 1985, p. 128, example 3. This article is reprinted in HUGLO 2005-2 as essay XI.

BIBLIOGRAPHY

ANGLÈS & SUBIRA 1946 : Anglès Higino & Subira José eds., *Catalogo musical de la Biblioteca Nacional de Madrid, I. Manuscritos*, Barcelona, Instituto Español de Musicología, 1946.

BERNHARD 2001 : Bernhard Michael, « Eine neue Quelle für den Vatikanischen Organum Traktat », in Michael Bernhard ed., *Quellen und Studien zur Musiktheorie des Mittelalters*, Veröffentlichungen der Musikhistorischen Kommission, 15, Munich, Beck, 2001, p. 175-190.

BURNETT 1986 : Burnett Charles, « Use of Geometrical Terms in Medieval Music: *elmuahim* and *elmuarifa* and the Anonymous IV », *Sudhoff's Archiv*, LXX (1986), p. 198-205.

COLK SANTOSUOSO 1989 : Colk Santosuoso Alma, *Letter Notations in the Middle Ages*, Ottawa, Institute of Mediaeval Music, 1989.

DURAND & LAFFITTE 2001 : *Le Trésor de la Sainte Chapelle*, Jannic Durand & Marie-Pierre Laffitte eds., Paris, Réunion des Musées nationaux, 2001.

ERICKSON 1995 : Erickson Raymond, *Musica Enchiriadis et Scolica Enchiriadis*, New Haven, Yale University Press, 1995.

GILISSEN 1977 : Gilissen Léon, *Prolegomènes à la codicologie. Recherches sur la construction des cahiers et la mise en page des manuscrits médiévaux*, Les publications de *Scriptorium*, VII, Ghent, Story-Scientia, 1977.

HAINES 2006 : Haines John, « Anonymous IV as an Informant on the Craft of Music Writing », *Journal of Musicology*, XXIII (2006), p. 375-425.

HAINES 2009 : Haines John, « The Origins of the Musical Staff », *Musical Quarterly*, XCI (2009), p. 327-378.

HESBERT 1963 : Hesbert René-Jean, *Corpus antiphonalium officii*, 1. *Manuscripti 'Cursus romanus'*, Rerum ecclesiasticarum documenta, Series major, Fontes, 7, Rome, Herder, 1963.

HUGLO 1985 : Huglo Michel, « Analyse codicologique des drames liturgiques de Fleury (Orléans, Bibliothèque municipale, ms. 201) », in Jacques Lemaire & Émile Van Balberghe eds., *Calames et cahiers. Mélanges de codicologie et de paléographie offerts à Léon Gilissen*, Bruxelles, Centre d'Étude des manuscrits, 1985, p. 51-78.

HUGLO 1988 : Huglo Michel, *Les livres de chant liturgique*, Typologie des Sources du Moyen Age occidental, 52, Turnhout, Brepols, 1988.

HUGLO 1990 : Huglo Michel, Review of LÜTOLF 1987, *Scriptorium*, XLIV (1990), p. 145-147.

HUGLO 1992 : Huglo Michel, « La place du *Tractatus de musica* dans l'histoire de la théorie musicale au XIII^e siècle », in Christian Meyer ed., *Jérôme de Moravie, un théoricien de la musique dans le milieu intellectuel parisien du XIII^e siècle*, Paris, Creaphis, 1992, p. 33-42.

HUGLO 1994 : Huglo Michel, « La "Musica" du Frère Prêcheur Jérôme de Moray », in Bernhard Hangartner & Urs Fischer eds., *Max Lütolf zum 60. Geburtstag Festschrift*, Basel, Wiese Verlag, 1994, p. 113-116.

HUGLO 1999-2004 : Huglo Michel, *Les manuscrits du processionnal*, Répertoire International des Sources Musicales, B XIV 1-2, Munich, Henle, 1999-2004, I. *Autriche à Espagne* ; II. *France à Afrique du Sud*.

HUGLO 2005-1 : Huglo Michel, *Chant grégorien et musique médiévale*, Variorum Collected Studies Series, CS 814, Aldershot, Ashgate, 2005.

HUGLO 2005-2 : Huglo Michel, *La théorie de la musique antique et médiévale*, Variorum Collected Studies Series, CS 822, Aldershot, Ashgate, 2005.

HUGLO 2007 : Huglo Michel, « Remarques sur l'Antiphonaire vieux-romain de Londres (British Library, Additional MS 29988) », in Terence Bailey & László Dobcsay eds., *Studies in Medieval Chant and Liturgy in Honour of David Hiley*, Ottawa, Institute of Mediaeval Music, 2007, p. 295-307.

HUGLO & HAGGH 2008 : Huglo Michel & Haggh Barbara, « Notes sur l'origine du graduel de Graz, UB 807 », in David Hiley & Gábor Kiss eds., *Dies est leticie: Essays on Chant in Honour of Janka Szendrei*, Ottawa, Institute of Mediaeval Music, 2008, p. 295-306.

HUGLO & PHILLIPS 1985 : Huglo Michel & Phillips Nancy, « Le *De musica* de saint Augustin et l'organisation de la durée musicale du IX^e au XII^e siècle », *Recherches augustiniennes*, XX (1985), p. 117-132.

JEFFERY 1991 : Jeffery Peter, « The New Chant Books from Solesmes », *Notes*, XLVIII (1991), p. 1039-1063.

LEMAIRE 1989 : Lemaire Jacques, *Introduction à la codicologie*, Louvain-la-Neuve, Institut d'études médiévales de l'université catholique de Louvain, 1989.

LÜTOLF 1987 : *Das Graduale von St. Cecilia in Trastevere (1071)*, Codex Bodmer 74, II. *Faksimile*, Max Lütolf ed., Biblioteca Bodmeriana, Reihe Texte, 2, Cologny and Geneva, Fondation Bodmer, 1987.

MUZERELLE 1985 : Muzerelle Denis, *Vocabulaire codicologique. Répertoire méthodique des termes français relatifs aux manuscrits*, Rubricae, I, Paris, CEMI, 1985.

Paléographie musicale XIX : *Le Manuscrit 807, Universitätsbibliothek Graz (XII^e siècle): Graduel de Klosterneuburg*, Paléographie musicale, XIX, Berne, Herbert Lang, 1974.

PHILLIPS 2000 : Phillips Nancy, review of TORKEWITZ 1999, *Plainsong and Medieval Music*, IX (2000), p. 77-80.

SCHMID 1981: *Musica et Scolica enchoriadiis una cum aliquibus tractatulis adjunctis*, Hans Schmid ed., Bayerische Akademie der Wissenschaften. Veröffentlichungen der Musikhistorischen Kommission, 3, Munich, Beck, 1981.

SMITS VAN WAESBERGHE 1953 : Smits van Waesberghe Josef, *De musico, paedagogico et theoretico Guido Aretino eiusque vita et moribus*, Florence, Olschki, 1953.

TORKEWITZ 1999 : Torkewitz Dieter, *Das älteste Dokument zur Entstehung der abendländischen Mehrstimmigkeit*, Beihefte zum Archiv für Musikwissenschaft, 44, Stuttgart, Franz Steiner, 1999.

VAN DIJK 1960 : Van Dijk Stephen J. P., « The Authentic Missal of the Papal Chapel », *Scriptorium*, XIV (1960), p. 257-314.

VIDIER 1911 : Vidier Alexandre, *Le Trésor de la Sainte Chapelle: inventaire et documents*, Nogent-le-Rotrou, Imprimerie Daupeney-Gouverneur, 1911.

VILARES CEPEDA & DUARTE FERREIRA 1994-2001 : *Inventario dos codices illuminados até 1500*, Isabel Vilares Cepeda & Teresa A. S. Duarte Ferreira eds., 2 vols., Lisboa, Biblioteca Nacional, 1994-2001.

ZAMINER 1959 : Zaminer Frieder, *Der Vatikanische Organum-Traktat (Ottoboni lat. 3025)*, Münchener Veröffentlichungen für Musikgeschichte, 2, Tutzing, Schneider, 1959.

2

The codicology of late medieval music manuscripts: some preliminary observations¹

In his excellent book *Medieval Books for Mass and Office* – the most complete and profound (if not the easiest) introduction to liturgical manuscripts of the Middle Ages – Andrew Hughes repeatedly states that much new research is needed for understanding the way in which codices containing music were made.² It is clear that this better knowledge will not only be gained by the traditional method of examining in depth a few single manuscripts, whatever their liturgical, art historical or musicological importance. The research should instead be directed towards large groups of codices, preferably those for which the origin and date are known. These will be in the first place *dated* manuscripts, such as are now being described in the prestigious international series *Manuscrits datés*.³ Liturgical manuscripts that feature an explicit colophon with an indication of place and time of production are, however, not very numerous, and need to be complemented by codices whose origin and approximate date have been established on the basis of other criteria, i.e. by *datable* manuscripts.

The investigation suggested here should of course not aim at producing complete descriptions similar to those appearing in common manuscript catalogues (comprising, for example, analyses of illuminations or descriptions of bindings), but should only deal with those elements that are useful for the research in view. These elements should then be subjected to a quantitative analysis. Criticism of this approach by serious, even famous scholars is no doubt the result of a misunderstanding, as it is obvious that a well-conducted examination of a well-constituted corpus of codices will result in important

1. I owe many thanks to John Haines for having invited me to talk about this theme at the Fourth International Congress on Medieval Studies at Kalamazoo in May 2005, for his warm hospitality and for the information he provided me about a field in which I am not really at home. Michel Huglo in his usual kindness gave me access to the text of the paper he was to deliver at the same conference (in this volume).

2. HUGHES 1982. Apart from this fundamental book there is relatively little literature on the codicology of late medieval music manuscripts. The contributions by Denis Escudier and Yves Riou deal essentially with earlier periods. See ESCUDIER 1980; RIOU 1990. Michel Huglo's studies are particularly interesting for our purpose; besides the one printed here, HUGLO 1979 should be mentioned. Important too, is the introduction to BERNARD 1965, although one can no longer agree with some statements given there, e.g. about ruling techniques. The recent and well-documented contribution by HAINES 2008 is of fundamental importance and in my opinion surpasses everything that has been said in this field.

3. About this important series see DEROLEZ 2004.

new knowledge that cannot be gained by other approaches; nor will this examination in any way diminish the value of the venerable documents submitted to it. In the following I shall consider a few aspects that may be of interest for future research in this field.

QUIRE STRUCTURE

It is evident that the music manuscript in the period considered here differs essentially from a text manuscript (or from a so-called illuminated manuscript) by the presence of staves and notation in addition to text. This feature normally does not affect the quire structure, but requires fundamental changes in the organization of the page and often necessitates complicated forms of layout. There is only one case, it seems, in which the structure of the quire is influenced by the presence of music in a manuscript: music manuscripts of exceptional size, such as those presenting page heights of 60, 70 or more cm, did not allow the use of parchment bifolios made from single skins folded once (in-folio folding), given the limited size of even the largest medieval skins (i.e. calfskins). They had to be made by pasting two skins together in the so-called 'atlantic' format. It will consequently be essential to investigate whether large antiphonals or graduals are indeed – or are not – made of such artificial bifolios.

GENERAL CONSIDERATIONS ABOUT RULING

The following notes will seem all too obvious, especially for experienced musicologists and codicologists, but they may be useful for a better understanding of the problems related to page layout in late medieval music manuscripts. Only liturgical manuscripts are considered in the following pages. Among these a distinction needs to be made between codices containing text and music on the same page, such as breviaries and noted missals, and manuscripts consisting only of music with accompanying text, such as graduals and antiphonals. To the latter group may be added missals, breviaries, etc., if they contain music in separate sections or quires. It is clear that in the former group the layout for musical notation is likely to be conditioned by or to interfere with the ruling for the text. In the latter group of 'full music' manuscripts, the layout for the notation, on the contrary, is not determined or hampered by any other line schema on the page, as the page consists only of a series of staves, each one having a line of text underneath.

The basic distinction in the field of the staff is of course the number of lines of which it is composed, i.e. either four or five. The staves are always traced in ink, generally red, more rarely black. It is generally understood that the four or five parallel staff lines are traced either separately, using a ruler, or in one action using a rake or *rastrum*, an apparatus provided with four or five pens allowing one to trace the entire staff by moving it from left to right alongside a ruler. We will return to the debated problem of the *rastrum* towards the end of this paper. If no *rastrum* was used, another technique must have been found to keep the staff lines strictly parallel, a requirement obviously considered essential in liturgical manuscripts.

Ruling for text in manuscripts of the Late Middle Ages was generally traced in ink – black, beige or pink – although lead or crayon could also be used. A clearly visible ruling was generally preferred. In music manuscripts, however, it was for aesthetical and technical reasons no doubt desirable that the ruling for the text should not be too strongly

marked, as this could conflict with the always heavily marked staff lines above it. In many 'full-music' manuscripts we see that the ruling for the text is traced in lead and often rubbed out. Especially in large-size manuscripts such as *graduals* and *antiphonals* the singing from such a large song-book by a choir supposes that the handwriting of the text was large enough to be read from a distance. This unusually large handwriting could not as a rule be written on single lines, but was generally written between two lines in order to maintain the same size of script. This *double ruling*, for the baseline and the headline of the script,⁴ differs essentially from the normal ruling in Gothic manuscripts: in the latter the text tends to be written *above* the line and the line of text tends to be framed on all four sides, but the letters do not touch one of these frame lines. It is believed that this feature is typical of the Gothic aesthetics of the page.⁵ By contrast, in the case of double ruling where the script (i.e. *minims* and short letters such as *o*) must necessarily touch the baseline as well as the headline, a clear marking of these lines by means of dark colour would spoil both the legibility and the beauty of the page.

There are, finally, a series of numerical data which should be noted whenever a codicological investigation of music manuscript pages is made:

- Height of the page in mm
- Number of columns (one or two)
- Number of staves on the page
- Distance from the top line of the upper staff to the bottom line of the lower staff in mm
- Staff type (four or five lines)
- Staff width from top line to bottom line, in mm
- Distance between two staves, in mm

RULING IN 'FULL MUSIC' MANUSCRIPTS

Since the publication of Denis Muzerelle's *Vocabulaire codicologique* the various aspects to be observed in the ruling of a medieval manuscript have become easier to distinguish than before.⁶ Far from being independent of each other, pricking, ruling technique and ruling pattern are interrelated, even if these relations have till now not sufficiently been taken into account. 'Full music' manuscripts have no text-pages at all, and their layout may thus be conceived in relation to the specific presence on the page of a series of staves separated from each other by a line of text, to which a line of text at the bottom of the page is to be added. In the case of one-column layout (which is the rule in late medieval codices of this type) the ruling comprises vertical lines at both sides of the text area. These *bounding-lines* are single (fig. 1) or double (fig. 2).

Double bounding-lines, as we see them in codices from the end of the Middle Ages, are always close to each other and have obviously been chosen for delimiting the space for clefs and *custodes* at the beginning and at the end of the staves, while the notation

4. The baseline is 'the writing line, i.e. the line on which the *minims*, the *ascenders* and the *majuscules* are written'; the headline is 'the (imaginary) line marking the top of the *minims* and short letters in *minuscule* script', according to DEROLEZ 2003, p. xx-xxi. These definitions are based on BROWN 1990, p. 3. Double ruling is the equivalent of the French 'linéation double', although Muzerelle's definition of the latter practice applies only to pages in which all horizontal lines are at the same distance of each other, which normally is not the case in music manuscripts: see MUZERELLE 1985, p. 108, no. 324.07.

5. DEROLEZ 1996.

6. See n. 4.

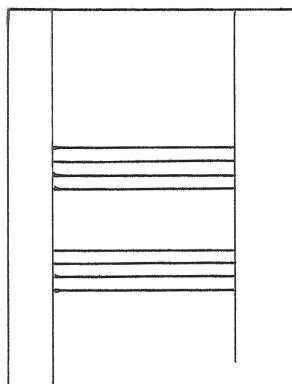


Figure 1. Single bounding-lines in a single column layout.

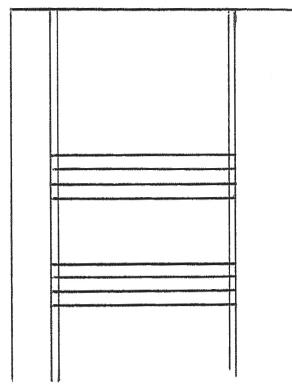


Figure 2. Double bounding-lines in a single column layout.

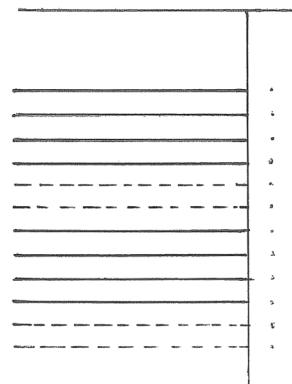


Figure 3. Ruling pattern in which staff and accompanying text take up six ruling units.

itself and the text underneath the staff were delimited by the inner bounding-lines. The bounding-lines (which of course had to be executed first, before the horizontal lines) were either traced in ink or in lead and we may assume that they were based on prickings in the upper and lower margins, even when these have disappeared during the trimming of the codex.

In contrast with bounding-lines, the tracing of staves and horizontal lines for the text required the development of innovative pricking and ruling techniques. The most obvious solution consisted no doubt in making a vertical row of equidistant prickings in the outer margin (or in the outer and inner margins) just as was done for text manuscripts, and in tracing staff and text lines out from these prickings (fig. 3).

In this example the distance between two staves equals the width of one staff, a proportion very often seen in late medieval music manuscripts, especially from Italy, even when (as is generally the case) the idea of full pricking had been given up.⁷ We may call the distance between two consecutive staff lines RU (ruling unit, *unité de réglure*⁸). In the preceding example, a staff and its accompanying text cover six RU, a proportion which allows a fine balance between the size of the notation and the size of the script. If on the contrary two (rather than three) RU are reserved for the text, a staff and its accompanying text cover only five RU, and the script must necessarily be made smaller (fig. 4).

Special pricking patterns for music codices move away from the standard idea of equidistant prickings over the full height of the page and make a distinction between pricking for staff lines and pricking for text lines. While the former are at regular distances from each other, the distance from the bottom staff line to the text line(s) underneath varies; it is generally larger (fig. 5).

7. A few examples can be seen in VOELKLE & WIECK 1992, nos. 60 (gradual, Tuscany, c. 1300), 61 (antiphonal, Tuscany, last quarter of the fourteenth century), 70 (antiphonal, Bologna, c. 1365), 72 (gradual, Florence, last quarter of the fourteenth century), 80-2 (antiphonal, Florence, middle of the fifteenth century). We also see the same proportion in manuscripts of other origins, as e.g. *Ibid.*, nos. 45-6 (antiphonal, Germany, end of the fifteenth century); see also below.

8. The term *unité de réglure* was first used by Léon Gilissen. See LEMAIRE 1989, p. 122-3.

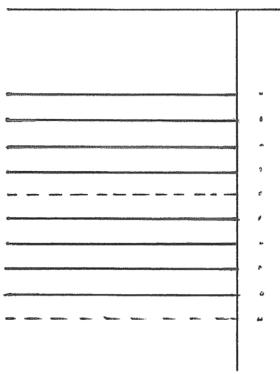


Figure 4. Ruling pattern in which staff and accompanying text take up five ruling units.

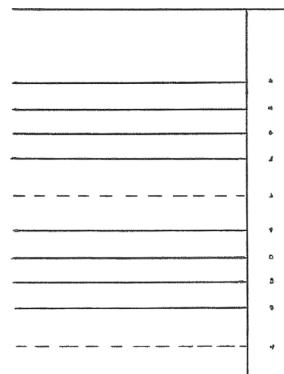


Figure 5. Ruling pattern for music, with pricks for staff and its accompanying text.

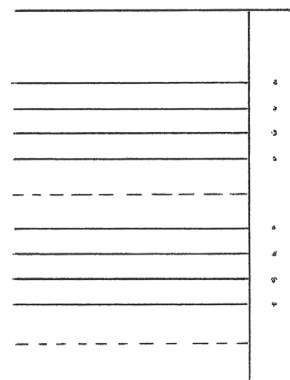


Figure 6. Ruling pattern for music, with pricks for staff but not for its accompanying text.

While figure 5 shows this pattern with pricks for both staff and accompanying text, figure 6 illustrates cases where there is pricking only for the staff, and not the accompanying text lines. A good example of the latter technique is Kalamazoo, Michigan (USA), University Library, ms. 6, a Cistercian antiphonal made in France in the first half of the thirteenth century. It has a page height of 325 mm and ten staves of four red ink lines on each page. In this manuscript we see, as in figure 6, a succession of four prickings close to each other, in view of tracing the first staff (width: 13 mm), followed, at a distance of 10 mm, by a new series of four prickings for the second staff.

But if in manuscripts of the type under consideration prickings are visible, they most often are only made to guide the *text* lines, so that the way the staves were traced is not immediately obvious, as seen in figure 7. Figure 8 illustrates a variant on this ruling scheme, very often encountered, with double pricking and ruling for the text.

With these kinds of pricking patterns, use of the *rastrum* in tracing the staves would have been rather straightforward, for this tool could be drawn alongside a ruler placed on the 'text prickings' at both sides of the bifolium or page. If, however, one can prove that no *rastrum* was used, the problem of how the staves were traced arises.

In numerous cases, no prickings at all are visible in music manuscripts of the genre discussed here, and future research must be based on the lines visible on the page.

The fact that the ruling for the text was often scarcely or not at all visible creates an aesthetic problem in late medieval music manuscripts: the ruling conflicts with what seems to be a general rule for Gothic manuscript books, namely that the text block must be framed on all four sides by a straight line.⁹ Indeed, if the text ruling is (almost) invisible, the upper margin is delimited by the upper staff line, the side margins by the bounding-lines, but at the bottom the page appears to be unframed. As a remedy to this, an additional ink line underneath the last text line could be traced. It is found in no more than a few manuscripts (of which the Kalamazoo antiphonal just mentioned is an example) and raises the question of *through lines* in music manuscripts, which will briefly be discussed below.

9. DEROLEZ 1996, p. 6.

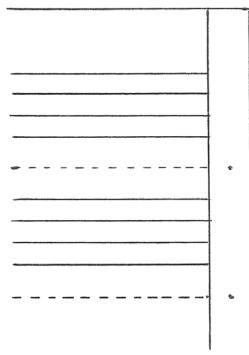


Figure 7. Ruling pattern for music, with single pricks for accompanying text only.

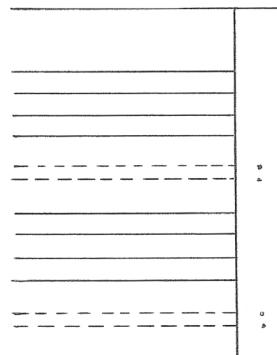


Figure 8. Ruling pattern for music, with double pricks for accompanying text only.

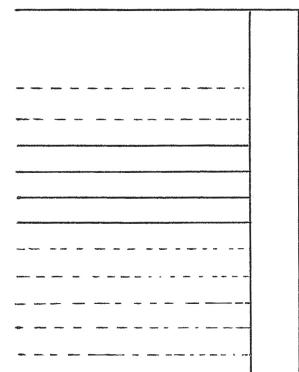


Figure 9. Staff lines traced directly on text lines.

RULING IN MANUSCRIPTS CONTAINING TEXT AND MUSIC ON THE SAME PAGE

In the Late Middle Ages ruling was generally created by a person other than the scribe and therefore could only exceptionally take into account the special content of a given page, as when pictures had to be drawn. Consequently, music notation in books such as noted missals and noted breviaries generally had to be placed on an already ruled page – and not specifically for music. The liberties that makers of ‘full music’ manuscripts took in developing the layout of their pages did not exist for their colleagues who had to place text and music on the same page. Lack of experience prevents me from giving here a survey of the various solutions to this problem, as discussed by Father J. P. Van Dijk.¹⁰ Here are just a few possibilities for drawing music staves on to an existing ruling without harming the look of the page too much. *A priori* the use of a *rastrum* on an already ruled page looks inelegant, unless the existing ruling is a dry, relief ruling – as in board ruling, for example (hard point ruling is to be excluded in the period under consideration) – but I have not seen examples of this.

In the example shown in figure 9, staff lines have been traced directly on text lines; four staff lines cover three RU, resulting in the same ratio as in figure 3. An interesting example of this practice is when rake ruling has been applied to a full page on the basis of a single pricking in the outer margin.¹¹ This technique is observed in many Italian text manuscripts of the fifteenth century, in which a rake with a great number of pens has been used, generally with beige ink, the bounding-lines being traced in lead.¹² The technique is perhaps not obvious in music manuscripts. It is nevertheless seen in a fragment of a large gradual in the Ghent University Library, written in Italy in the fifteenth century (ms. 4163, page height 575 mm). Here, single vertical bounding-lines have been traced in lead on the hair side of the parchment only (a very common practice in Italy), following prickings in the upper and lower margins; horizontal lines are in beige ink and the single pricking is in the outer margin at about the height of the eighth line. The five staves on

10. See HAINES 2008, p. 6-7.

11. GUMBERT 1986, p. 48.

12. DEROLEZ 1984, p. 76-8 and DEROLEZ 2000, p. 291-301.

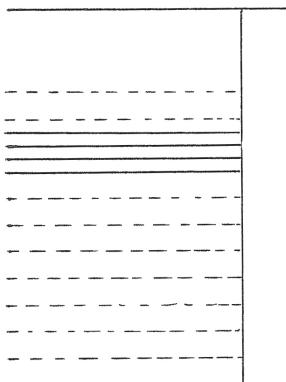


Figure 10. Staff lines traced both on and between text lines.

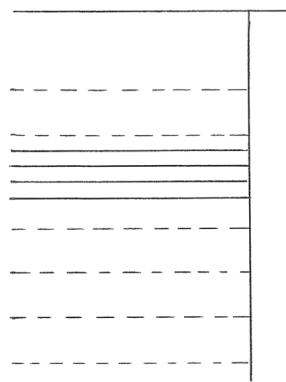


Figure 11. Layout in which one staff and its text takes up two ruling units.

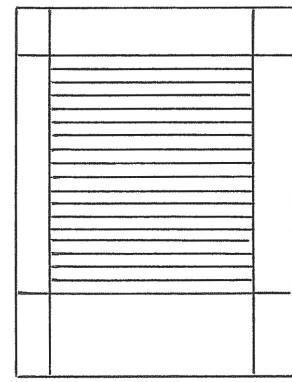


Figure 12. Ruling block with through lines at the top and bottom.

each page have a width of 43 mm and are traced in red ink covering the beige ink of the ruling; the staff lines are on lines 1-4, 7-10, 13-16, 19-22 and 25-28. There are a total of 30 lines and the ruling for the extremely large script is double.

Another possibility is to trace staff lines both on and between text lines, so that a four-line staff and its text underneath cover three RU, as seen in figure 10.

PROPORTIONS OF THE PAGE IN MUSIC MANUSCRIPTS

In the preceding, I have on several occasions mentioned mathematical proportions. In what follows, I will discuss a few more examples of different proportions, but will abstain from searching for such 'remarkable proportions' as the golden section or the Pythagorean proportion, which may or may not have been used by the manuscript makers in question.¹³

There are innumerable manuscripts in which the ratio of music staves to text lines on the page cannot be expressed in a simple fraction. In quite a number of codices, however, a simple mathematical proportion can be observed between the areas reserved for each of the two components of the music page, as has already been said above. Often we see that the distance between two staves equals the width of one staff: a staff plus the text underneath occupies six RU (in the case of four-line staves; one staff = three RU, as in fig. 3).¹⁴ The Italian fragment in Ghent University Library mentioned above is an example of this form of layout. It is also found in other countries, as for example in the antiphonal of the Flemish abbey of Grimbergen near Brussels, dated 1483, with a page height of 455 mm (Brussels, Royal Library, ms. 210). Here we find ten staves in red ink on each page, delimited by single bounding-lines in beige ink; the double ruling for the text, based on double prickings (as in fig. 8) in the outer and in the inner margin, is invisible but the width of an individual staff as well as the distance between two staves is 16 mm.

13. See GILISSEN 1977, p. 123-237.

14. See n. 7.

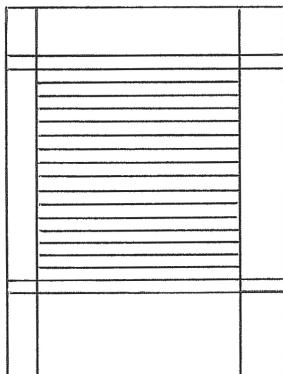


Figure 13. Ruling block with double through lines at the top and bottom.

Assuming a four-line staff, other extant proportions are as follows:¹⁵

one staff + text = five RU (one staff = three RU)

one staff + text = three RU (one staff = two RU)

one staff + text = two RU (one staff = one and a half RU)

In the last two cases the superimposition of staff lines on and between the ruling lines may create an awkward impression in manuscripts that are not 'full music' ones, unless, of course, a system is found that is less offensive to the eye.

An example of our first proportion (one staff + text = five RU, one staff = three RU, as seen in figs. 4 and 9) is found in a small hymnal in the Royal Library of Brussels, dated 1483 (ms. II.263 [614], page height 155 mm). The staves for the music parts are traced in red ink over the existing text ruling executed in light brown ink. The line underneath the first staff (line 5) is used for the text, and at line 6 begins the next staff. This arrangement results in text written in very small handwriting, contrasting unpleasantly with the large *nota quadrata* on the staves.

Here are a few examples of our second proportion (one staff + text = three RU, one staff = two RU, as in fig. 10). A collectary-capitulary for the Brussels Clares, dated 1348, with a page height of 245 mm, has a one-column ruling for 24 lines of text (25 lines drawn), traced in brown ink (Brussels, Royal Library, ms. 1870 [570]). The pages containing music have the same ruling, but there are 49 prickings in their outer margins instead of 25 (there is one additional pricking between every two normal prickings), and the staves are executed using prickings 2-5, 8-11, 14-17, 20-23, 26-29, 32-35, 38-41 and 44-47, with prickings 7, 13, 19, 25, 31, 37, 43 and 49 serving to guide the text lines. This way the red staff lines are traced alternately between two text lines and on one text line, with the red ink covering the brown ink of the ruling. A similar arrangement for layout, in which one staff and its accompanying text measure three RU, is seen in a missal for Mâcon, c. 1490, with a page height of 345 mm.¹⁶ The Canon pages are ruled in pale red ink for fifteen lines of script. The Prefaces are noted and have five staves per page, traced in red ink on and between the sixteen lines of the existing ruling. In view of the large distance between the lines, additional double lead lines have been traced to assist the scribe writing text. Another example is an illuminated missal from Baudelo abbey in Flanders dated from the early sixteenth century (Ghent, University Library, ms. 74). It has the same page height as the preceding example, and the very wide ruling for the Preface is traced in pink

15. These are best visible if the pages are entirely ruled for text.

16. Sotheby catalogue 18.06.1991, no. 124.

ink. Where music had to be placed, two red staff lines were intercalated between three traced text lines, so that a staff consists of alternating red and pink lines.

Two fourteenth-century examples will illustrate how a layout works in which one staff + text equals two RU (1 staff = 1 ½ RU, as in fig. 11). One processional from Paris (Brussels, Royal Library, ms. 1799 [643]), with a page height of 265 mm, has a simple ruling in lead for 26 lines of script (27 traced lines). No pricking is visible, but on the pages containing music there are at maximum thirteen staves, so that one staff + text does indeed correspond to two lines of text. Similarly, a ceremonial from Saint Peter's abbey in Ghent (Ghent, University Library, ms. 296), with a page height of 230 mm, is ruled in lead for seventeen lines of script (eighteen traced lines); where music occurs, there are a maximum of nine staves per page (staff width 11 mm), each staff with its text covering two RU. Of necessity the handwriting underneath the staves had to be smaller than in the non-musical parts. It may be significant that the layout discussed here is seen in manuscripts with *lead ruling*.

THROUGH LINES

As has been said above, a page containing only bounding-lines, music staves and their accompanying text lines conflicts aesthetically with the normal page of the Gothic manuscript book, in that below its lower text line there is no visible traced line to frame the 'text block' at its lower end. One of the basic characteristics of the Gothic page is indeed its preoccupation with strictly framed, compact text blocks.¹⁷ In most antiphonals, graduals and similar 'full music' manuscripts, the bottom text line 'hangs' below the last staff without a straight line underneath it like those framing the page at the three other sides. This may have been a reason for adding a horizontal line below the bottom text line, as was done in the Kalamazoo ms. 6 cited above. Either this or a *through line* (i.e., a horizontal line extending from the fold to the edge of the page) could be traced below the final text line, as is seen in some codices. Another solution was to add similar through lines at the top as well as at the bottom of the music page, thus bringing the appearance of the music page closer to the general Gothic look. Indeed, the ruling of most Gothic books features one or two such through lines both at the top and at the bottom of the text area, as seen in figs. 12-13.

Manuscripts without through lines are no rarity, but deserve to be examined more closely to see whether they perhaps have *rake ruling*, like the Ghent fragment discussed above.

In what follows a few examples of music manuscripts showing one or more through lines will briefly be discussed. Bruges, Seminary Library, ms. 73/32 is a small antiphonal of The Dunes abbey in West Flanders (Ter Duinen), dated 1525. On the pages, 170 mm high, six staves are traced in *black* ink; they alternate with lines in red-brown ink for the text (written in *Gothica hybrida formata*, not in the traditional *textualis*). The latter lines are based on six prickings in the outer margin, but the bottom one is special because it extends over the whole width of the page. An even smaller ritual of Ter Doest abbey, the daughter abbey of The Dunes, kept in the same library and also dating from the first half of the sixteenth century (ms. 78/182, page height 120 mm), has an exactly identical layout (but for four staves on a page), and its staves are traced using the same *rastrum* with a width of 10 mm as in the preceding manuscript. A late antiphonal, also in the Seminary

17. See n. 9.

Library of Bruges (*sine numero*, page height 505 mm, second half of the sixteenth century), differs from the preceding examples by its being entirely ruled in lead and showing *two* through lines at the bottom of the page instead of one. These lines are paralleled by double bounding-lines at both sides of the page. The manuscript has ten staves traced in red ink on each page, with a width of 18 mm. The distance between two staves is 21-23 mm and the handwriting is a large *Gothica rotunda formata*.

A fragment of a fifteenth-century manuscript with the notated text of the Passion is kept in the Archives of the Abbey of Averbode in Brabant (IV.417, no. 29). It has a page height of 305 mm and seven staves of four red ink lines on each page. There are double narrowly spaced bounding-lines traced in lead on both sides of the page, based on prickings in the upper and lower margins, and, also in lead, a through line *at the top of the page* based on a single pricking in the outer margin; the latter is followed by fourteen prickings for the double ruling of the text, but the lines that correspond to these are no longer visible.

Rulings with more than one or two through lines seem to occur in early music manuscripts only. In a Cistercian antiphonal from the second half of the twelfth century, probably from Morimondo (Kalamazoo, University Library, ms. 1, page height 310 mm), there is at the end a hymnal of the first half of the thirteenth century with music on eight staves of four coloured lines per page (black, yellow, black, red). The ruling, in beige ink, has double bounding-lines at each side of the page and *one through line* below each staff to guide the text. Even more complex is the ruling of a gradual in the Bernard H. Breslauer collection originally from late thirteenth-century Regensburg (page height 505 mm).¹⁸ Here, a typical thirteenth-century pattern with *six through lines* (two widely spaced lines at the top and at the bottom, and two narrowly spaced lines in the middle of the text area) has been adapted to a music page containing nine four-line staves: the first line coincides with the top line of the upper staff, the second is the text line below the upper staff, the third coincides with the bottom line of the fifth staff, the fourth is the text line below the fifth staff, the fifth coincides with the top line of the ninth staff, and the sixth is the text line below that ninth staff. As there are five staves above the central through lines and four below, the central lines are not exactly in the middle of the written area, and the adopted ruling lacks something of the perfect harmony found in similar rulings from text-only manuscripts.

USE OF THE RASTRUM

Proving that the staves were traced by means of a *rastrum* is often difficult. It is generally easier to state where this instrument has *not* been used. Apart from the cases mentioned above (the presence of a full set of prickings each corresponding to a staff line, or the lack of parallelism between staff lines), the rake cannot have been used when:

- The staves are of uneven width. A good example is Ghent, University Library, ms. 1054, an illuminated antiphonal of the thirteenth/fourteenth century, in which the width of the four-line red staves varies from 17 to 20 mm.

- The lines of the staff do not have the same length. For example, if the upper or the lower line is a through line, as in the Breslauer fragment mentioned above; we see another example of this in a fourteenth-century ritual in the Library of the Seminary in Bruges

18. VOELKLE & WIECK 1992, nos. 35-36.

(ms. 77/98, page height 210 mm), in which the top line of the first staff and the bottom line of the last staff on the page are (red) through lines.

- The lower lines of the staff are interrupted in order to make room for an initial in the text underneath, while the upper lines are continuous (see next paragraph). This is the case in the Ghent antiphonal just mentioned.

- The lines of the staves coincide exactly with the lines of the ruling of the text, unless the entire page has rake-ruling.

CONTINUOUS OR INTERRUPTED STAVES

I have already alluded to a final distinction to be made regarding staves: are the staves interrupted in view of the initials in the text underneath and of the copying of the rubrics, or are they continuous? Indeed, initials are so tall that they generally enter the zone reserved for the music notation. Continuous staves seem to be found mostly in early manuscripts, especially those of the thirteenth century, a period in which the aesthetic disadvantage of initials interfering with the staves above them does not seem to have been considered prohibitive; whilst in codices of subsequent centuries, staves generally appear to be interrupted. No doubt this statement needs to be checked in a large number of manuscripts, but if this impression is accurate, the following observation can be made. In an age of commercial book production, the last-named solution (i.e. interrupting the staves where necessary) was no doubt the more expensive one, as the artisan charged with the tracing of the staves had to be particularly attentive to places in the text where initials were planned or were already executed. Similarly he had to provide space for the writing of rubrics. This solution had, however, an aesthetic advantage in that the initials – and to a lesser degree the rubrics – did not interfere with the staff lines. In the preceding I have assumed that style of the decoration required the initials to be quite tall, as is usually the case. Manuscripts of this period using shorter initials that did not cross the area of the staves, and where the staves consequently could be continuous, seem to have been exceptional. One such case is an Italian antiphonal from the fifteenth century (Antwerp, Museum Plantin-Moretus, ms. cat. 306, page height 550 mm), in which all initials are so short that they never cross the staves; the same is the case in the Ghent University Library antiphonal from Italy discussed above (ms. 4163).

Here are a few examples of early manuscripts with uninterrupted staves and initials crossing the staff lines: Bruges, City Archives, *sine numero*, the fragment of a *missale notatum* from the second half of the thirteenth century; Brussels, Royal Library, ms. 143 (661), an antiphonal from the thirteenth century; and the already mentioned Cistercian antiphonal in Kalamazoo, Michigan (University Library, ms. 6), from the first half of the thirteenth century.

THE MAKING OF THE MUSIC MANUSCRIPT

The preceding point is linked to the more general and important issue of the order of the various activities required by the making of a music page. As far as I know, this problem has hitherto not received much attention. The challenge for makers of music manuscripts was of course to keep text and music strictly parallel, so that each syllable could be placed underneath its corresponding note, except in the case of melismas where a whole series of notes corresponded to a single syllable. Notation and text were thus strictly inter-

dependent, and it is not easy to understand how they were executed in a consistent way unless a pre-existing model was used.

Sometimes the manuscripts themselves give us a clue as to the order in which the various parts of the music page came into being: ruling, text, staves, notation, and decoration. Regarding the latter, a preliminary distinction should be made between painted initials and *cadels* – calligraphic initials in black ink heightened with colour (mostly red or yellow) – which aside from their colouring could be made by the scribe during the copying of the text. The latter are particularly frequent in late medieval music codices. If they really were made by the scribe, one problem in the search for parallelism between text and notation can be eliminated.

Let us consider a few cases in which specific features of a given manuscript allow us to see how the artisans charged with making music pages proceeded. In the Bruges City Archives *missale notatum* mentioned above, dating from the second half of the thirteenth century, rubrics are written on text lines, not in the staff area, and their ascenders sometimes cover part of the notation; flourished initials, on the other hand, cover part of the staves. This means that rubrics as well as initials were made after the completion of the notation. The same features are observed in the thirteenth-century Brussels Royal Library antiphonal mentioned above, in which the ink of both decoration and rubrics occasionally covers the staff lines.

In the fourteenth-century gradual Brussels, Royal Library, ms. 5567 (628), one can easily observe that the text was copied first, after which the continuous staves were traced, and finally the flourished initials were added; there is no apparent clue as to when the notation was drawn. In the thirteenth-century Kalamazoo Cistercian antiphonal (ms. 6), on the contrary, it is clear that first the staves (and the text lines?) were traced, and afterwards the text was copied and decorated. An examination of the fifteenth-century Italian antiphonal in the Plantin-Moretus Museum in Antwerp (ms. cat. 306) yields the following conclusion: first came the full ruling in beige ink, then the text was copied, then the rubrics were added, then the staves were traced (over the beige ink lines) and the notation was added, and finally the text was decorated with coloured initials, which, as observed earlier, are so short that they never cross the staves. In this case it is interesting to note that the *cadels* are made by the text scribe; consequently they cross the staves and are covered by the staff lines.

As much as in the above I abstained from entering into the debate about ‘remarkable proportions’, I feel unable to attribute the origins of the techniques discussed in this essay to monastic orders. But the observations made here, based on a few manuscripts chosen at random, may be useful in determining the direction of future codicological investigations of Late Medieval music manuscript pages. The study of ruling techniques and patterns, and the measurements of pages, layout and staves will no doubt allow scholars to group manuscripts according to these criteria and to establish rules and tendencies observed in the various countries and workshops and at various periods of the Late Middle Ages.¹⁹

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19. The classification of the ruling types proposed in BERNARD 1965, p. 14, now looks quite rudimentary.

BIBLIOGRAPHY

BERNARD 1965 : Bernard Madeleine, *Répertoire de manuscrits médiévaux contenant des notations musicales*, vol. I. *Bibliothèque Sainte-Geneviève - Paris*, Paris, CNRS, 1965.

BROWN 1990 : Brown Michelle P, *A Guide to Western Historical Scripts from Antiquity to 1600*, London, British Library, 1990.

DEROLEZ 1984 : Derolez Albert, *Codicologie des manuscrits en écriture humanistique sur parchemin*, I. *Bibliologia*, V, Turnhout, Brepols, 1984.

DEROLEZ 1996 : Derolez Albert, « Observations on the Aesthetics of the Gothic Manuscript », *Scriptorium*, L (1996), p. 3-12.

DEROLEZ 2000 : Derolez Albert, « Ruling in Quattrocento Manuscripts: Types and Techniques », in Jirí K. Kroupa ed., *Septuaginta Paulo Spunar oblata (70 + 2)* [Festschrift Pavel Spunar], Prague, Praha KLP, 2000, p. 291-301.

DEROLEZ 2003 : Derolez Albert, *The Palaeography of Gothic Manuscript Books, from the Twelfth to the Early Sixteenth Century*, Cambridge, Cambridge University Press, 2003.

DEROLEZ 2004 : Derolez Albert, « The Publications Sponsored by the Comité International de Paléographie Latine », *Scriptorium*, LVIII (2004), p. 109-121.

ESCUDIER 1980 : Escudier Denis, « Les manuscrits musicaux du Moyen Âge (du IX^e au XII^e siècle). Essai de typologie », in *Codicologica*, III. *Essais typologiques*, Leiden, Brill, 1980, p. 34-45.

GILISSEN 1977 : Gilissen Léon, *Prolégomènes à la codicologie. Recherches sur la construction des cahiers et la mise en page des manuscrits médiévaux*, Les publications de *Scriptorium* VII, Ghent, Story-Scientia, 1977.

GUMBERT 1986 : Gumbert J. Peter, « Ruling by Rake and Board. Some Notes on Late Medieval Ruling Techniques », in Peter Ganz ed., *The Role of the Book in Medieval Culture*, I. *Bibliologia*, III, Turnhout, Brepols, 1986.

HAINES 2008 : Haines John, « The Origins of the Musical Staff », *Musical Quarterly*, XCI (2008), p. 327-378.

HUGHES 1982 : Hugues Andrew, *Medieval Books for Mass and Office. A Guide to their Organization and Terminology*, Toronto, University of Toronto Press, 1982.

HUGLO 1979 : Hugo Michel, « Codicologie et musicologie », in *Miscellanea codicologica F. Masai dicata* I, Ghent, Story-Scientia, 1979, p. 71-82.

LEMAIRE 1989 : Lemaire Jacques, *Introduction à la codicologie*, Louvain-la-Neuve, Institut d'études médiévaux de l'université catholique de Louvain, 1989.

MUZERELLE 1985 : Muzerelle Denis, *Vocabulaire codicologique. Répertoire méthodique des termes français relatifs aux manuscrits*, Rubricae, I, Paris, CEMI, 1985.

RIOU 1990 : Riou Yves, « Codicologie et notation neumatique », *Cahiers de civilisation médiévale*, XXXIII (1990), p. 255-280 and 381-396.

VOELKLE & WIECK 1992 : Voelkle William M. & Wieck Roger S., *The B.H. Breslauer Collection of Manuscript Illuminations*, New York, Pierpont Morgan Library, 1992.

3

Manuscript production in Ethiopia: an ongoing practice

It is possible that Ethiopia has produced more manuscripts than any other country. This is because printing was not known there until the twentieth century; prior to that time, all religious books were copied by hand. The number of manuscripts would have increased dramatically had Ethiopian traditional education not been oral, the teacher playing the role of the African story teller and demanding from his students to memorize by heart as he did when he was a student. Books in manuscript were produced mainly for services in church and, in the case of the Psalter, for personal prayer as well.

Manuscript production has been going on at least since the introduction of Christianity into Ethiopia in the fourth century. Monasteries and churches have continued the practice to this day, even after the introduction of printing, for two reasons. First, the traditionalists prefer manuscripts over printed books as they are sturdier than paper books, hence less prone to wear and tear during their use as worship aids in daily church services and as text books for school children. Second, local printers have not yet developed a satisfactory technique for printing either the complex musical notations contained in traditional chant books or their ornamental designs and paintings. This ongoing need for books has required that copyists be trained in the proper preparation of parchment, ink and pen, and in the art of producing calligraphy.

The language of Ethiopian manuscripts is mostly Ga‘əz and sometimes Amharic. Both are Semitic languages, with the former now limited to religious affairs and the latter used as the official language of state and the *lingua franca* of the Horn of Africa. Due to its position, Amharic’s vocabulary and phonetic system are heavily influenced by the several non-Semitic vernaculars of the country.

The Ethiopic or Ga‘əz script is undoubtedly Semitic. But on the surface, it looks neither like that of Arabic, Hebrew or Syriac, the sister languages of Ga‘əz. Its closest kin is the South Arabic alphabet, this conclusion being drawn from South Arabic or Sabaean epigraphic sources collected from both Arabia and Ethiopia. The arrangement of the twenty six letters of the Ga‘əz alphabet differs drastically from that of their counterparts in other Semitic writing systems. Here are the consonant signs of the Ga‘əz alphabet in their traditional order: **ሀ** (h), **ለ** (l), **ሐ** (ḥ), **መ** (m), **ወ** (ś/š), **ሩ** (r), **ሳ** (s), **ቁ** (q), **በ** (b), **ተ** (t), **ኑ** (ḥ), **ኑ** (n), **ኑ** (/a), **ኑ** (k), **ወ** (w), **ኋ** (‘), **ዘ** (z), **የ** (y), **ደ** (d), **ገ** (g), **ጠ** (t), **ጠ** (p), **ሮ** (s), **ቻ** (z), **፻** (f), **ጥ** (p).

There are seven vowels traditionally recognized by scholars: ä, u, i, a, e, ə, o. As shown in Table 1, the signs are attached to the letters representing the consonants. In some cases the joined symbols look like new ones, different from the original symbols, as the vowel signs are in some cases not systematic.

Table 1. The consonant signs of the Ga'az alphabet with the vowel signs attached to them.

There are two types of manuscripts: communal and private. The communally owned manuscripts are produced and found in monasteries and churches, where, as said earlier, they are needed for use as service books. Each church is expected to have copies of at least the Four Gospels and the basic rituals, such as the liturgy for the Mass (*Qəddase*), the baptismal and funeral rituals (*Krəstənna* and *Gənzät*, respectively), the Psalter (*Dawit*), the Book of Hours (*Sä'atat*), the Book of Prayer of Incense (*Sälötä Ḥtan*), acts (*gädl*) and miracles (*tä'amar*) of the saints – especially the one to whom the church is dedicated, and the Book of the Miracles of Mary (*Tä'ammərə Maryam*). Churches that cannot afford to have a copy of the entire New Testament copy the verses needed for services into their books of ritual. In general, big churches also have copies of the Antiphonary for the Year or for the Fast of Lent (*Dəggʷa* or *Şomä Dəggʷa*), the Lectionary for Passion Week (*Gəbrä Ḥəmamat*), the Book of Prayer of Epiphany (*Təmqät*) and some books of the Old Testament.

Monasteries, which serve as educational centers, try to have in their libraries a copy of anything written in Gə‘əz. Many of them also have produced religious books by translating them from Coptic Arabic, the language of the Orthodox Church of Alexandria – the former mother Church of the Ethiopian Orthodox Church – or composing them locally. The search for unique and rare texts is focused on such places. Famous among them were the monasteries of Däbrä Hayq ድሬዬ; the Lalibäla or Lasta churches in today's Wällo; the monasteries on the islands of Lake Tana and its surroundings, in Gondär-Goğgam; Däbrä Bizän and Şa’da Amba Sällase in today's Eritrea; Däbrä Damo, Aksum, Gundagunde and Abba Gärima in Tägray; and Däbrä Libanos and Däbrä Sina (on the island of Lake Zway), in Śäwa. Many once important monasteries, such as Mäkanä Śällase, in Amhara, have lost their prestige due to the devastation visited upon them by the violent sixteenth-century Islamic revolt from the east and the subsequent Oromo migration from south to north. The royal palace was also an important center of manuscript production.

Privately owned books are of two kinds: prayer books, principally the Psalter owned by almost every clergyman and devout Christian, and chant books owned by teachers. Aside from religious-magical scrolls, the book most copied is the Psalter, because of its versatility and ubiquity as the prayer book of the faithful (fig. 1). It is sung in church; it is read as part of the funeral ritual and Lectionary of Passion Week; it is used as textbook for the instruction of Gə‘əz reading. Clergy carry this book with them at all times, especially when making a journey.

As a prayer book, the Ethiopian Psalter contains, in addition to the one hundred and fifty-one psalms of David, fifteen biblical canticles taken from the Old and New Testaments; Solomon's Song of Songs; hymns to the Blessed Virgin for the seven days of the week, and one more for Sunday. The seven-days hymns, called Praises of Mary (Wäddase Maryam) are ascribed to Ephrain or Simeon, a famous and saintly Syrian potter, while the additional hymns for Sunday were composed by the Ethiopian priest Yared who lived during the Aksumite era, possibly in the seventh or eighth century. Today, copies of the Psalter inundate the country's market places and souvenir shops, and spill over to the markets of neighboring countries, as well as on E-bay, where they are labeled 'Ethiopian Bible'.

The parchment is usually produced from goatskin and less commonly from goat- and calfskin. Some people in the West assume that Ethiopian parchment is also made from pigskin, but this is certainly not the case. Ethiopia is a country where Old Testament dietary habit is strictly observed; both Christians and Muslims consider the pig an unclean animal. This might be a tradition carried over by Semitic-language speaking peoples into Christianity. The process of manuscript production is well documented by Sergew Hable Selassie in his *Bookmaking in Ethiopia*,¹ and recorded on video by Neal W. Sobania and Raymond A. Silverman.² The music of the Ethiopian Church and its unique notations have been the subject of study of Western scholars, most notably in the two volumes of *Ethiopian Christian Liturgical Chant*, by Kay Kaufman Shelemay and Peter Jeffery.³

The teacher Abba ድሬዬ, a fifteenth-century monastic leader, describes the process of parchment production in his day as follows:⁴

Furthermore, the saint made a parable for them from (the preparation of) goatskin needed for bookmaking, saying, 'You brought the goatskin from the markets; when

1. SELASSIE 1981.

2. SOBANIA & SILVERMAN 1999.

3. SHELEMAY & JEFFERY 1993.

4. HAILE 2011.



Figure 1. Ethiopian monk copying manuscript
(photograph courtesy of the Hill Museum and Manuscript Library).



Figure 2. Preparation of parchment
(photograph courtesy of Prof. Steve Delamarter, George Fox University, Portland, Oregon).

you brought it, did you soak it in water? When it was soaked, was it beaten with a stick? After it was beaten, was it hanged? Was it flattened [with pumice stone] and scrubbed? When it was scrubbed, was it washed and made clean?

Interestingly, this process has not changed over the centuries; this is precisely how parchment is prepared in Ethiopia today. The skin is soaked, beaten, stretched on all sides, tied with cords to a wooden frame, and flattened and smoothed with pumice stone (fig. 2). Unlike European vellum, Ethiopian parchment is not bleached. Once the parchment is ready to accept ink, it is cut to the required size, lined and divided into columns using a needle as a pen.

The size into which the parchment is cut depends, of course, on its intended use, whether as a pocket manuscript containing hymns, called *mälkä* or ‘image’ for praising saints or for praying against evil spirits, or as a much larger book, for example: the manuscripts of the Synaxary, the Lectionary for Passion Week (the *Gäbrä Ḥəmamat*), the treatises of the Church Fathers (the *Haymanotä Abäw*), the Antiphonary for the Year (*Dəggʷa*), and the Four Gospels. Parchments are also cut into scrolls, documents that usually contain prayers and spells against evil spirits assumed to cause all kinds of disease (Pl. 1).

Copyists write with reeds (*bər*); to this day the pen is called *bər* በር or ‘reed’ (Pl. 2a). The reed is sharpened and a sharp knife or razor is used to make a slightly horizontal cut into the sharpened tip and split it. If one pen is used for more than one color of ink, the copyist cleans it with the hair of his own head between colors. In Ethiopia the quill has not been used as a pen, even though in some paintings the Evangelists are depicted using it for writing their gospels.

The main pigments are black and red.⁵ The black ink is prepared from the sooty remains of burned cereals and plants. The red, used for copying decorative designs and rubrics marking divisions and sacred names is extracted from flowers and leaves, as well as other pigments (Pl. 2b). The inkpot is made from an ox’s horn.

Some copyists clearly treated their work as art. Letters such copyists produce are so beautiful that one is tempted to focus on them over the message of the text. Some manuscripts are richly supplied with decorative designs and miniatures. These designs, together with murals painted on church walls, are the major representatives of Ethiopian artistic expression. The artist, the copyist and the person who prepares the parchment are in many cases different people. At least one fifteenth-century source testifies to the fact that the preparation of the manuscripts was in general the responsibility of professionals, but not necessarily of copyists. The source is a work ascribed to Emperor Zär'a Ya'əqob (1434-1468):⁶

And Gämäləyal abused the book of the miracles of Mary, the Queen of Heaven and earth. (Once) when he was walking in the street, he met a certain deacon called Täjämqä Mädhən. The former asked the latter saying to him, ‘Where are you going?’ He replied to him, saying, ‘I am going to the scribes carrying this parchment so that they may copy on it the miracles of Our Lady Mary’.

Interestingly, this source also corroborates the general assumption that Emperor Zär'a Ya'əqob had a scriptorium where selected scholars of the Church, the so-called *Kahnatä Däbtära* or ‘Clergy of the Tabernacle’, i.e. the clergy who served at churches built by the monarchs, recorded the Emperor’s religious views, which texts were then reproduced by his scribes ‘en masse’ for distribution to the famous monasteries.

5. See WION 1999, p. 103-112.

6. Trans. HAILE 1991, p. 3, 31 and 66.

The complete manuscript is finally bound in six and eight gatherings (Pl. 3a). The wooden boards, which are attached to the front and back side of the manuscript in order to protect it, are sometimes covered with stamped fine vellum (Pl. 3b). As its name, *baḥrā 'arāb* ('of the Arabian sea'), indicates, the vellum is imported from the other side of the Red Sea.

Governor Səm'on of Hagära Maryam in Šäwa, who lived during and after the reign of Emperor Ləbnä Dəngel (1508-1540), describes his Psalter, stolen with other property, in the following fashion:⁷

But I grieve over the picture of (Mary's) beautiful image, the like of which cannot be found, which I have had the European Märqorəyos paint, because a thief has taken it from me. (O My Lady Mary,) let whatever is lost of my property remain lost, but does not (the fact) that he took the beautiful and delightful picture, which I have had a painter paint in Egyptian ink of different colors, grieve you? The brightness of its vellum looks like [a piece of] Egyptian linen cloth which a cleaner has brightened. Its ink is like the color of black crystal, like soot. The redness of its ink is like the color of amber that glows. The cover of its boards is a badger skin that has the beauty of European red wool. Each picture is covered with scarlet.

The vellum was most probably European, as Səm'on would have not bothered to describe it in this fashion had it been an ordinary, locally-produced parchment. The use of badger skin and the deep reverence for icons are reminiscent of how the Israelites treated the Ark of the Covenant. Märqorəyos, the Italian Brancaleon, was one of the foreigners serving the Palace and the country's dignitaries. A miracle of Mary wrought for Emperor Dawit (1380-1412) implies that foreigners were in the Ethiopian court at least a century before Märqorəyos/Brancaleon. The miracle story in question implies that one of them helped in making golden ink, mixing the fluid with a substance of possible foreign origin.⁸

Musical notation was introduced in the sixteenth century, most probably inspired by the Portuguese who came to Ethiopia to suppress the Islamic revolt that had devastated the Christian heritage and to convert the Church to Catholicism. The notation is of two kinds: signs and abbreviations of words. The signs may have developed from the Western tradition; it would not be difficult to trace the stages of this development. The word abbreviations are from chants whose melodies are studied in school. A hymnal text, with abbreviations above it, is sung according to the melody of the text the abbreviation represents.

GETATCHEW HAILE

BIBLIOGRAPHY

CERULLI 1943 : Cerulli Enrico, *Il libro etiopico dei miracoli di Maria e le seu fonti nelle letterature del Medio Evo latino*, Rome, Bardi, 1943.

HAILE 1991 : Haile Getatchew trans., *The Epistle of Humanity of Emperor Zär'a Ya'əqob (Tomarä Təsba't)*, Leuven, Peeters, 1991.

HAILE 2005 : Haile Getatchew, « The Works of Ras Səm'on of Hagära Maryam », *Journal of Ethiopian Studies*, XXXVIII (2005), p. 5-95.

HAILE 2011 : Haile Getatchew, *A History of the First Ḥistifanosite Monks*, Leuven, Peeters, 2011.

7. HAILE 2005, p. 80.

8. CERULLI 1943, p. 87-88.

SELASSIE 1981 : Selassie Sergew Hable, *Bookmaking in Ethiopia*, Leiden, Karstens Drukkers, 1981.

SHELEMAY & JEFFERY 1993 : Shelemay Kay Kaufman & Jeffery Peter, *Ethiopian Christian Liturgical Chant*, Madison (Wisconsin), A-R Editions, 1993.

SOBANIA & SILVERMAN 1999 : Sobania Neal W. & Silverman Raymond A., *The Parchment Makers: An Ancient Art in Present-Day Ethiopia*, Hope College and Michigan State University, 1999 (video).

WION 1999 : Wion Anais, « An Analysis of 17th-Century Ethiopian Pigments », in Manuel Joao Ramos & Isabel Boavida eds., *The Indigenous and Foreign in Christian Ethiopian Art*, Aldershot, Ashgate, 1999, p. 103-112.

PART TWO
EARLY MEDIEVAL NOTATIONS

4

Calligraphy and the study of neumatic notations

To write down musical sounds is not the same as writing down language. The analogy between parts of speech and music is well established in Western thought.¹ Its first appearance in clear and simple form was in Carolingian music theory. The opening of the late ninth-century treatise *Musica enchiriadis* sets out a structural parallel:

Just as the elementary and indivisible constituents of speech are letters, from which syllables are put together, and these in turn make up verbs and nouns, and from them is composed the fabric of a complete discourse, so the roots of song are *phthongi*, which are called *soni* in Latin. The content of all music is ultimately reducible to them. From the coupling of tones come intervals; from intervals, in turn, grow systems. Tones, however, are the primal elements of song.²

This parallel provided a tool for the reduction of melodies to linked but discrete tones, and this way of thinking about melody is directly reflected in the line diagrams of musical notation presented in the treatise.³ As a form of human communication in sound, music could be perceived as sharing some of its expressive characteristics with language: in one of the texts most widely copied in the Carolingian period, the seventh-century encyclopedist Isidore described song as ‘changing pitch’ (literally ‘the inflection of the voice’),⁴ and provided a categorization of voices into thirteen types, all of which relate to both spoken and sung expression (‘sweet’, ‘distinct’, ‘clear’, ‘delicate’, ‘rich’ and so on). That categorization was copied virtually in its entirety by the mid ninth-century musical theorist Aurelian of Réôme.⁵ For rationalised models of the manipulation of sound Carolingian scholars

1. For a wide-ranging discussion of instances of the analogy, and of issues raised by it, see POWERS 1980.

2. *Sicut vocis articulatae elementariae atque indiuiduae partes sunt litterae, ex quibus compositae syllabae rursus componunt verba et nomina eaque perfectae orationis textum, sic canorae vocis ptongi, qui Latine dicuntur soni, origines sunt et totius musicae continentia in eorum ultimam resolutionem desinit. Ex sonorum copulatione diastemata, porro ex diastematibus concrescent systemata; soni vero prima sunt fundamenta cantus.* In SCHMID 1981, p. 3. This translation from ERICKSON 1995, p. 1. The earliest extant sources of the *Enchiriadis* treatises date from the late ninth and the early tenth centuries, but the text may have been composed decades earlier. On the manuscript transmission, see PHILLIPS 1984.

3. On these diagrams see PHILLIPS 2000, p. 315-316.

4. *Cantus est inflexio uocis.* See LINDSAY 1911, vol. 1, III. xx, p. 142. The translation ‘A song is the voice changing pitch’ is from BARNEY, LEWIS, BEACH & BERGHOF 2006, p. 96. On the diffusion of this text in the early middle ages, see BEESON 1913 and BISCHOFF 1996, p. 171-194.

5. See GUSHEE 1975. On Aurelian’s borrowing from Isidore, see ATKINSON 2009, p. 96-99.

concerned with the theorization of music turned to the writings of late antique grammarians.⁶ But it was clear to late antique writers that music was something different from language. Augustine had worked that out in the opening chapters of his dialogue about music, where he makes a careful distinction between what pertains to grammar, and what to music, leading to the famous definition quoted over and over through the Middle Ages, *musica est scientia bene modulandi*.⁷

Besides this ontological distinction, there is another issue which sets the written conditions of language and music apart. In general, music notation has no significance in itself,⁸ but represents an intermediate state between one sound event and another – what had been and could again be sung and heard; this is true of early medieval notations in an especially sharp sense, since in practical rather than theoretical forms, such notations depended largely on recall, and functioned as guides to help the reader trace paths of recall in his memory. In contrast, there are many reasons why words were written down which stretched beyond the moments of their enunciation: the inscription and display of scriptural texts provide an obvious example. It is because of this functional discrepancy between written text and written music that differences in approaches to the copying of each deserve notice. When copying a text, a scribe needed to transcribe the words correctly, to keep them in the right order, to make no omissions, and to notice errors in his exemplar. Over and above this he could work with systems of punctuation, word spacing, mise-en-page of text, and different types and sizes of script, articulating the text on the page in order to help readers to understand as they read, sometimes also helping them to shape the text in sound. Useful arrangement of material on the page was a requirement of music notation also. But the copying of music in an early medieval neumatic notation could not have been handled in the same way as text. Such notations had no independence from the sound phenomenon to which they related: nor were they ever fully prescriptive – since they did not provide primary instructions for the recreation of articulated sound. In ‘copying’ something notated, an early medieval music scribe needed to recall the melody in his own head, and then, to balance this inner knowledge with and against any written exemplar he used as he made his own notational inscription. As the singing of a melody depends on a performer, so too these early notations depended largely on their scribes, above all on the abilities of those scribes to use the potential of neumatic notation to record detail, and on the musical habits and interests of those scribes in relation to the nature and specificity of detail recorded.

It is this demand made of neumatic notation – that it should respond to individual sound-memories and local circumstances – that provides a conceptual explanation of the calligraphic flexibility which sits at the heart of the neumatic system. In the hands of good scribes, those who combined detailed musical knowledge with calligraphic ability and sense, the capacity of neumatic notations for representation of musical expression is so elastic that it is crucial that the modern reader of these notations consider individual notations first and foremost as the writing of individual scribes, before setting them within the context of named scriptoria and institutions.⁹ And that observation has the further consequence that it is necessary not only to consider fixed signs, but also variable use of the same ‘signs’ and, above all, strategies for the use of those signs. While most neumatic

6. See BIELITZ 1977 and ATKINSON 2009, both *passim*.

7. FINNAERT & THONNARD 1947, I.II.2.

8. But for a discussion of the status of music as a visual image in the Middle Ages, see CULLIN 2006.

9. See especially ARLT 1987 and 1996.

notations used fixed sets of signs, what underlay those signs was not so much a code comprising ways to write specific melodic patterns as broader procedures for showing intervallic patterns, rhythm and articulation;¹⁰ such procedures could be exploited in a myriad of ways.

In order to explore ways in which calligraphic considerations can help in our understanding of neumatic notations, I use here two cases drawn from two music books made at Winchester in the eleventh century. One case deals with a specific sign, the other with ways in which neumes were written in the space above the text. My questions are intended to test scholarly narratives about musical notation against Winchester scribal practice. While it is quite clear that we cannot argue from the particular to the general, that rule applies the other way around also: it is unwise to argue from the general to the particular and it is this which matters in considering calligraphic techniques for musical notation, because the work of any one musical scribe may be highly individualised.

The earlier of the two Winchester tropers, Cambridge, Corpus Christi College, ms. 473, was probably copied in the 1020s-30s, with additions made right through the rest of the eleventh century.¹¹ The other Winchester troper – so-called, but actually including a great deal of repertory often copied in Graduals¹² – must have been made about twenty years later, in the 1040s-50s. Oxford, Bodleian Library, ms. Bodley 775 also has additions made right through the eleventh century, and later, indicating its continued use beyond Cambridge, CCC, ms. 473. In these two books it is possible to study a settled notational practice, written in one institution, as well as a mass of notations written by scribes aware of changing possibilities and needs over the hundred years which followed, up to the early twelfth century.¹³ It was during this period that many notators writing in northern France, Normandy and England exchanged neumes written *in campo aperto* for neumes written on a staff – not necessarily as a result of, but probably with knowledge of the innovations of Guido d'Arezzo.¹⁴ That changeover to the use of a staff, with the consequence that space over the text was now fully mapped in relation to pitch, marks the first fundamental transformation of practical systems of music writing since their appearance in the ninth century.¹⁵ In this discussion, one case study will relate purely to the type of neumatic notation written in early eleventh-century Winchester, while the other introduces moments and modes of change.

The first case study concerns a sign which indicates two descending notes, usually called the *clivis*.¹⁶ In notations radiating from the upper Loire and Burgundy to parts of northern France and England, through Germanic areas to the north and east, and south into north and central Italy, two descending notes are written in an arch shape (fig. 1a). Calligraphically speaking the movement of this graph goes up first and then down. The sign can be written at different angles and with different lengths of stroke. The genesis

10. The fact of flexibility between strategies and signs, with the consequence that graphs for signs are not fixed, is especially clear in an early example of palaeofrankish script: on this, see RANKIN 1994, p. 302.

11. For a full description and discussion of the date of the manuscript, see RANKIN 2007, p. 3-9.

12. On the unusual combination of repertoires in this book, see RANKIN 2005.

13. On the various notations written in Cambridge, CCC, ms. 473, see HOLSCHEIDER 1968, p. 82-118 and RANKIN 2007, p. 19-46.

14. On the introduction of staff notation, see further below, and n. 28.

15. On the availability of notational systems which could show pitch precisely in the ninth century, see PHILLIPS 2000, p. 301-327; and, for discussion of why they were not adopted for practical purposes, RANKIN 2011.

16. On the names conventionally used for neumatic signs, see HUGLO 1954.

| French areas: | England: | | |
|---|-----------------|----|----|
| 1 | 7 | 1b | |
| 2 | 8 | | 1c |
| 3 | 9 | | |
| German areas: | Northern Italy: | | |
| 4 | 10 | | |
| 5 | 11 | | |
| 6 | | | |
| 1 Autun, Bibliothèque municipale, ms. S28 2 Leipzig, Stadtbibliothek, ms. Rep. I. 8° 93 3 Paris, Bibliothèque Nationale de France, ms. lat. 9449 4 Munich, Bayerische Staatsbibliothek, ms. clm lat. 9453 5 Sankt Gallen, Stiftsbibliothek, ms. 339 6 Bamberg, Staatsbibliothek, ms. lit. 5 7 Cambridge, Corpus Christi College, ms. 473 8 Oxford, Bodleian Library, ms. Bodley 775 9 London, British Library, ms. Cotton Caligula 14 10 Rome, Biblioteca Angelica, ms. 123 11 Verona, Biblioteca Capitolare, ms. 107 | 1a | 1d | |

Figure 1a. Ways of writing the *clivis*.Figure 1b. Accents as the basis of the *clivis*.Figure 1c. *Virga* and *punctum* as the basis of the *clivis*.Figure 1d. Other ways of writing the *clivis*.

of this sign has been explained in two ways: in association with the 'accent theory' of musical notation – whereby the acute, grave and circumflex prosodic accents were used as a starting point for the invention of neumes – the *clivis* is seen as a combination of an acute and a grave accent (fig. 1b).¹⁷ This conceptualization of the basic graphic form of the sign has retained currency long beyond the accent theory itself. In Cardine's *Sémiologie grégorienne*, the graph of this sign is described as 'composed of two elements: acute accent and grave accent', even though Cardine's stated view about the origins of neumes is more nuanced than earlier Solesmes theories.¹⁸ The second explanation, although associated with the accent origins theory, is more pragmatic than conceptual: signs for more than one note can be built up from combinations of signs for single notes.¹⁹ Thus, if the signs used in these same regional neume scripts for a higher note (*virga*) and a lower note (*punctum*) are joined, the result is a *clivis* (fig. 1c). In contrast to this type of *clivis*, there is another way of writing two descending notes (fig. 1d): these combine a stroke towards the right – sometimes along the horizontal, but often at an upwards angle – and a downwards stroke. These two strokes are usually written at an angle. This form is found above all in notations from western and north-eastern France, in the families of Breton and Messine scripts, as well as in the 'palaeofrankish' notations.²⁰

17. The accent theory was first proposed in print by de Coussemaker, and then worked out in more detail by later writers, especially Mocquereau; see COUSSEMAKER 1852, p. 173; and *Paléographie musicale I*, p. 96–160. Useful accounts of parts of the debate appear in HANDSCHIN 1950 and CORBIN 1977, p. 3.16–19. More recent consideration has linked palaeofrankish neumes with accents: see ATKINSON 1995; 2003 and 2009, p. 106–113. Those ways in which prosodic accents might have been combined to create neumes are illustrated in SUÑOL 1935, p. 26.

18. CARDINE 1970, p. 17. On the way in which Cardine's statement about the origin of neumes combined accent theory, punctuation and chieronomy, see LEVY 1987, p. 64 reprinted in LEVY 1998, p. 114.

19. For example, in CORBIN 1977, p. 3.5, 3.19.

20. These two graphs are not the only ways of writing a sign for two descending notes: other neumatic scripts include two separated 'hooks' (messine) and a simple angled curve (palaeofrankish).

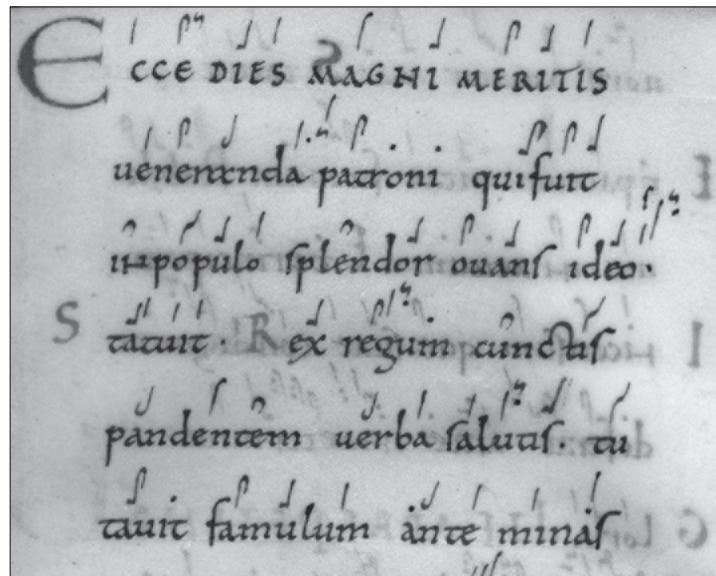


Figure 2. Cambridge, Corpus Christi College, ms. 473, fol. 39^r, section (by kind permission of the Master and Fellows of Corpus Christi College, Cambridge).

A more recent theorization of the early development of neumes involves the use of semiological categories: 'iconic', 'symbolic' and 'indexical'.²¹ One important justification for considering neumes under these headings is the argument that 'the iconic-symbolic classification identifies actual classes [of neumatic script] [...] whereas the point-accent classification identifies categories to which no scripts belong as a whole'.²² Summarized briefly, those types of neumatic scripts in which the primary means of reading signs was based on convention, built on an 'habitual association between the sign and its referent', were described as 'symbolic' – the fundamental convention being the representation of a high note by a *virga* and of a lower note by a *punctum*. In the other kind of scripts, 'the vertical position of the note-signs vis-à-vis one another' was based on a 'spatial metaphor' (the metaphor of higher and lower musical sounds). These scripts functioned primarily in an 'iconic mode', a sign having meaning 'by virtue of a resemblance that it bears to the thing represented'. Where the manner of representation of the arch-shaped *clivis* typical of the central European neume families could be described as 'symbolic', the meaning of the angled *clivis* of the various French regional notations could be described as 'iconic' – readable as a visual representation of a musical gesture.

In calligraphic terms, there is an important contrast between these two ways of writing the *clivis* sign. In those kinds of notation which use the *virga/punctum* pair as the main signs, the *virgae* strokes are clearly written by a pen drawn *up* the page: this movement upwards can easily be seen in the darker colour at the upper end of these strokes (which may also appear as a slight thickening), where the ink has pooled as the stroke is finished (fig. 2). This goes against the pattern of writing text, in which the pen is mostly drawn down, or across. The reason for this was that, in the friction of pen against parchment, the wider the pen, the greater the friction. This explains why the nibs of pens used to

21. This semiological approach to reading neumes and the history of neumatic notations was worked out in TREITLER 1982 reprinted, with a new introduction, and substantial changes in TREITLER 2003, p. 317-364.

22. TREITLER 2003, p. 356.

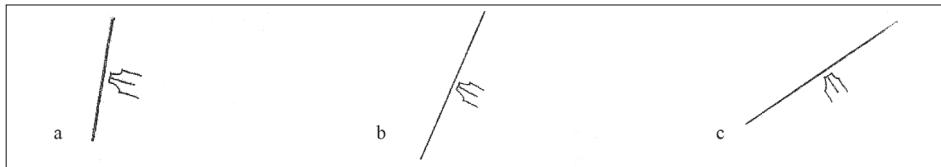


Figure 3. The relation between pen angle and axes of neume script: a. Cambridge, CCC, ms. 473 (Winchester); b. Autun, BM 4 (West Frankish); c. Sankt Gallen, SB, ms. 359 (Sankt Gallen).

write neumes – in early scripts, and in good scriptoria – were cut extremely thin. That thinness remains characteristic of Anglo-Saxon notation in the eleventh century, at a time when German notations were beginning to be written with thicker pens. Since the axes of strokes in neumatic notations are closely tied to decisions about the angle at which a pen is held, this change in pen width can be directly attributed to the axes used in Anglo-Saxon and German notations. The need to write upwards determined the fact that the nib would sit exactly along the direction of an upward stroke (fig. 3): the more pronounced perpendicularity of the Anglo-Saxon neumatic script would have prohibited the use of a wider pen. Nevertheless, even if it is easy to understand how a wider pen could be used to write the more inclined German neumes, it is not obvious why the practice changed so markedly over the period between the end of the tenth and the end of the eleventh centuries. Considered in relation to the historical theories about accents and about combined signs, the Anglo-Saxon *clivis* remained visually related to the *virga-punctum* sequence, but could never have been read as related to prosodic accents.

In the earlier of the two Winchester books, Cambridge, CCC, ms. 473, two forms of *clivis* are written. The graph most commonly written is the arch shape typical of the family of scripts to which this Winchester notation belongs: the large central European group. The other graph is the angled stroke of the palaeofrankish, Messine and Breton scripts. This second *clivis* was noticed by Leo Treitler, who proposed it as evidence of a wider trend: 'A turn to the iconic principle is evident also in the second Winchester Troper [...]. In the main, English neumatic writing was symbolic [...]. But in the notation of the new organum parts provided for some of the traditional chants in Corpus Christi 473, the repertory of forms in the script was enlarged by the addition of the iconic *Clivis* and *Porrectus*, and there was a discernible effort at diastemata.'²³ About the use of the square *clivis* in the *organa* notations he was absolutely right: it is entirely confined to that part of the book (fols. 135^r-198^v). But it is worth taking a look at how and why it this form of *clivis* was used, and what that use indicates about the scribe's attitudes to signs.²⁴

On the last five lines of fol. 136^v, notation is provided for an organal voice for a *Kyrie* setting (Figure 4a); the main voice for this *Kyrie* is written on fol. 56^v. On this part of fol. 136^v the square *clivis* is written several times ('*Christe*', '*Kyrie*', '*Kyrie*'). In the notation for '*Christe*', the square and round *clives* are juxtaposed. By putting the neumatic notations for main and organal voices together, the top line transcribed according to later pitched versions of the same *Kyrie*, the organal voice read through the neumes according to contrapuntal patterns derived from study of these *organa*, it is possible to arrive at a

23. TREITLER 1982, p. 261.

24. In fact, the earlier Sankt Gallen Tropers, Stiftsbibliothek, mss. 484 and 381, both made in the second quarter of the tenth century, also use the square *clivis* (in addition to the round version standard at Sankt Gallen); on this, see ARLT 1996, p. 60.

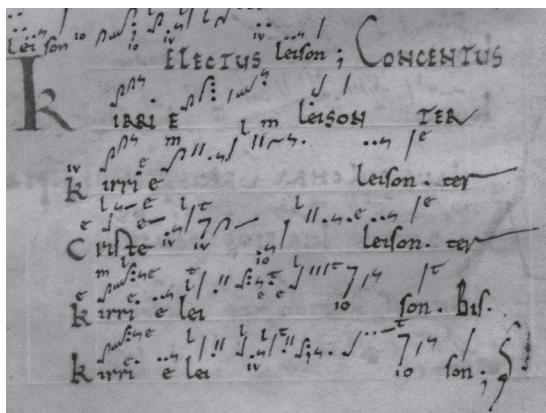


Figure 4a. Cambridge, Corpus Christi College, ms. 473, fol. 136^v, section (by kind permission of the Master and Fellows of Corpus Christi College, Cambridge).

Figure 4b. Passage from a two-voice Kyrie (Cambridge, Corpus Christi College, ms. 473, fols. 56^v & 136^v).

reasonably secure transcription (fig. 4b).²⁵ And this allows us to see that, in this notation for an organal voice, the two different *clives* are associated with different melodic behaviours: the square graph is written where the organal voice should fall through an interval of a fourth, and the round graph is written where the organal voice descends just one tone. There is another important difference between the two musical situations: where the square graph is written, the organal voice must change tessitura (as does the upper voice also). Whether the intervallic difference was more significant than the movement from one tessitura to another, or vice-versa, is not clear. The technique of moving the organal voice to the same tessitura as the chant is a procedure described by theorists; however, the expectation is that the organal voice follows the chant. Here, because of the fast descent of the upper voice through a seventh, the organal voice moves to the lower level first. That move is confirmed by the indication in significative letters, *iustum walde* ('go well down'). In this musical situation the square *clivis* appears to act as a signal which warns the reader that something different is to happen: although, when the main voice sings cG, the organal voice would often stay at this level (singing GG), here the organal voice had to aim for a further point in the phrase, the unison cadence on D.

A second example shows the square *clivis* again associated with a large interval, this time not sequentially in the organal voice, but between the two voices (fig. 5). At the end of the phrase – the end of the whole ninefold Kyrie setting – the square *clivis* is written immediately after a round *clivis*. Since the organal notation includes the letter 'e' (*equaliter*) immediately in front of the square *clivis*, the simplest way of reading the first tone of this *clivis* as G, a fourth below the main voice, is reinforced. If that is the first note, then the second must be a tone below, on F, creating an interval of a fifth between the two voices. That interval is used elsewhere in the Winchester *organa*, but it is not common.²⁶ Once again we find both a significative letter and a contrast of juxtaposed signs linked with a particular, and here relatively unusual, musical situation.

25. For studies of the Winchester *organa*, and of techniques for making pitched transcriptions, see HOLSCHEIDER 1968, p. 119-130 and RANKIN 2007, p. 61-74.

26. RANKIN 2007, p. 70-72.



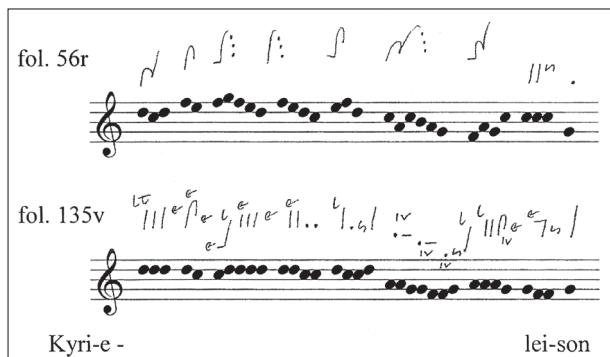


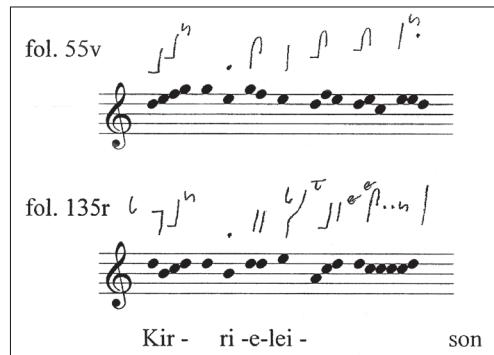
Figure 5. Passage from a two-voice Kyrie (Cambridge, Corpus Christi College, ms. 473, fols. 56^r & 135^v).

In the case of both types of *clives* in Figure 4 and the square *clivis* in Figure 5, the organal voice was moving in parallel to the chant voice. In a final example the square *clivis* is twice linked with direct contrary movement (fig. 6). Here, in the Kyrie *Christe redemptor*, the square *clivis* appears as a mirror image of the corresponding *pes* in the main voice at the opening of the phrase. This manner of beginning a phrase on a unison and moving immediately apart is extremely common in the Winchester *organa*: there is another example further on in the same phrase, and here again the square rather than the round *clivis* is written.

In a technical sense, these two forms of the *clivis* do not have different meanings: both indicate a downward descent between two notes. Nor, it seems, does the less usual Winchester form, the square version, have any specific meaning beyond 'take care'. Nevertheless, in asking the reader to pay attention, the square sign has been put to extremely good use by this Winchester notator. By making conscious use of an alternative form of the sign, he was able to build another layer of information into his organal notations. His awareness of another way of writing that musical movement was probably due to the availability in England, especially at Canterbury, of musical notations written after the 'Breton' fashion.²⁷ He could then deliberately exploit the potential of two calligraphically differentiated procedures. In view of this analysis, it is relatively unlikely that use of the square *clivis* in the organal notations related to a larger historical trend, a move from symbolic to iconic notational procedures. While the scribe was certainly attempting to inject more pitch information into his notation, the square sign in no sense supplanted the round version. More significantly, the square *clivis* is not in itself more diastematic: rather, it is the calligraphic contrast between the two signs which matters. This deliberate calligraphic procedure is not seen in other parts of Cambridge, CCC, ms. 473, nor in the other contemporary Winchester book Oxford, BL, ms. Bodley 775. This restriction to the organal notations suggests a desire on the part of one scribe to maximize the potential of the notational tools available to him. Effectively, he wanted to bolster the value of a recall-based notational system in its provision of guides for singing locally-fashioned organal voices. To achieve his end, he looked beyond the graphic models in the type of music script he usually worked with, and drew in another way of writing a sign from another type of script. Evidently, he did not doubt that the meaning of that sign would be understood by readers, its evident strangeness in the system intended to jolt the reader's pattern of thought as processes of recall and reading coalesced.

27. For a reproduction of 'Breton' neumes written at Canterbury, see HILEY 1993, p. 406-407. Insular sources with Breton notation are listed in HUGLO 1963, and more recently in HARTZELL 2006.

Figure 6. Passage from a two-voice Kyrie
(Cambridge, Corpus Christi College,
ms. 473, fol. 55v & 135r).



A second case study concerns the use of the space above the text, known since the work of Henry Marriott Bannister as the *campo aperto*.²⁸ The change from the writing of non-diastematic neumes to the writing of notes on lines took place in many European regions between the mid eleventh and the mid twelfth centuries; it was above all in southern Germany and further to the east that precise pitch notations were not adopted until later. There have been few accounts of just how that change was made. In his *Schriftbild der einstimmigen Musik*, Stäblein was careful not to give all the credit for the changeover to Guido. Speaking of the way in which neumes were 'made legible' he wrote: 'The procedure seems to us (because we have 800 years of stave notation behind us) extremely simple [...]. The middle ages soon regarded this innovation as an invention of Guido d'Arezzo [...]. Yet it should not be overlooked, that many lines of development led to the final result.'²⁹ A recent study has insisted on the invalidity of the Guidonian claim to have invented the staff, presenting evidence about different techniques used in different European regions in the ninth, tenth and eleventh centuries, all attempting to provide clearly heighted, and thus precisely pitched, notation.³⁰ Because of the extensive additions made to the two Winchester books throughout the eleventh century, it is possible to observe stages in the change from the older non-diastematic notation to notes on lines in considerable detail, and to add some local detail to that broader narrative. And it is the detail which makes it interesting, since this local history does not immediately match any of the models offered by the *Musica enchiriadis* notations (on lines, as a metaphor for strings),³¹ the Aquitanian notations of the same period (moving neumes up and down within a space controlled by text and then music ruling),³² or the Guidonian stave.

The first layer of Winchester notations in Cambridge, CCC, ms. 473, all written by one music scribe,³³ makes little use of the space above the text in diastematic fashion, although there are always moments when it does. The basic rule is that neumes sit along an

28. BANNISTER 1913, p. xxvii.

29. STÄBLEIN 1975, p. 54: 'Das Verfahren scheint uns, die wir achthundert Jahre Liniennotation hinter uns haben, recht einfach... Das Mittelalter hat schon bald diese Neuerung als eine "Erfindung" Guidos von Arezzo betrachtet... Doch darf nicht übersehen werden, daß mancherlei Entwicklungstränge zu dem endgültigen Resultat hinführten.' See now also HAINES 2008. Haines argues that the production of increasingly specialized music books in the tenth and eleventh centuries led to the adaptation of ruling and pricking patterns in a variety of ways, allowing the development of more than one system for writing notes with clearly heighted pitch.

30. HAINES 2008.

31. PHILLIPS 2000, p. 315.

32. HAINES 2008, p. 342-343.

33. RANKIN 2007, p. 25-35.

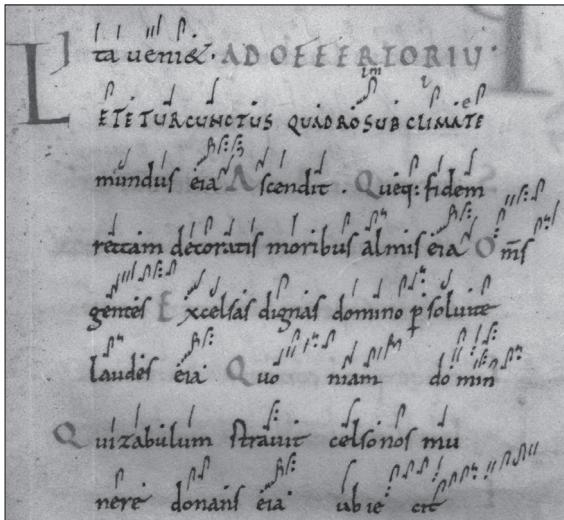


Figure 7. Cambridge, Corpus Christi College, ms. 473, fol. 33^r, section (by kind permission of the Master and Fellows of Corpus Christi College, Cambridge).

imagined line above and parallel to the text (see fig. 7). But if diastemata is not intended why then can we often see a clear and repeated pattern of movement up and down within the *campo aperto*? In the set of tropes beginning *Letetur cunctus* for the Ascension offertory *Ascendit deus* shown in Figure 7, the movement of neumes above the first syllables of *ea* (l. 3) and *Omnis* (l. 4) might suggest that this movement was the result of a lack of horizontal space, forcing melismatic neumatic groups upwards. But the way in which the neumes over *Quoniam* (l. 6) and *ubiecit* (l. 8) move upwards is no different and in both cases there was no lack of horizontal space.

In fact, this upwards movement has nothing to do with musical meaning, and everything to do with the actions of the scribe's hand and fingers. Holding his hand away from the surface of the parchment, manipulating the pen with his fingers, the scribe usually wrote a group of neumes defined by musical phrases before moving his whole hand to the right. In those places in which he moved his fingers, but not his hand, he would lift the pen at the end of one neume and start the next very close to the end of the last. This way of writing resulted in a kind of diagonal movement, from lower left to upper right for whole groups of neumes.³⁴

That such movement constitutes a basic procedure in writing this notation, without reference to spacing, is especially conspicuous when there is no text, and thus no element which would control and constrict horizontal space in advance of the writing of the neumes. In the notation for the sequence *Letatus sum*, groups of neumes for separate parts of the sequence (marked off between letters) move from the lower left of the space to the upper right (fig. 8a).³⁵ Compared with a pitched transcription based on later sources, the rising patterns of the neumes are often seen to move in a direction entirely contrary to that of the melody (fig. 8b).³⁶ In reality, the zigzag pattern results directly from calligraphic techniques, and is quite independent of intentions for the indication of pitch.

34. For a palaeographical study of this technique, see RANKIN 2011.

35. The letters written beside these neumes should be distinguished as, on the one hand, significative letters, providing more musical information, and, on the other, letters written close to the line ruled for text which indicate the separation between melodic phrases, and the number of times each phrase is to be sung (x: 'sing once', d, 'sing twice').

36. The pitched version used in this transcription is based on HUGHES 1934, p. 51 but adjusted to the neumes in Corpus 473.

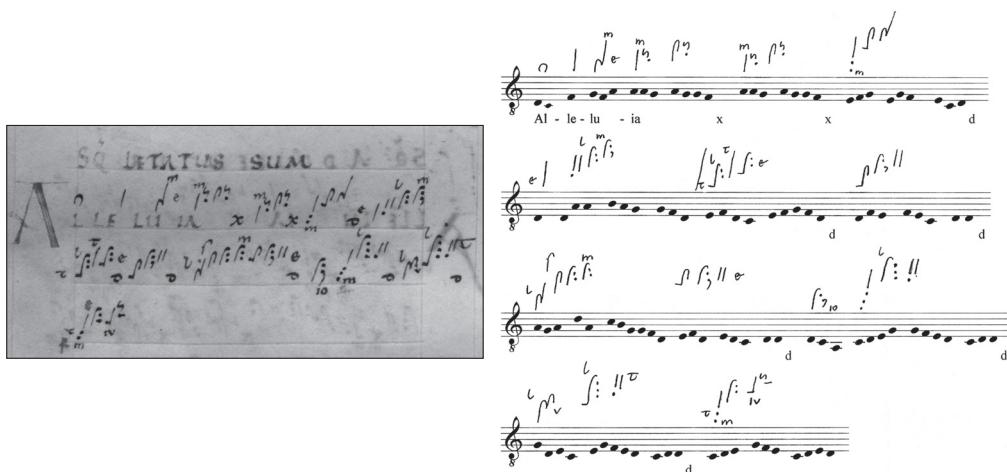


Figure 8a. Cambridge, Corpus Christi College, ms. 473, fol. 85^v, section (by kind permission of the Master and Fellows of Corpus Christi College, Cambridge).

Figure 8b. The sequence *Letatus sum*, with neumes from Cambridge, Corpus Christi College, ms. 473, fol. 85^v.

This was not the work of a bad scribe: these calligraphic techniques are typical of a whole series of regional families of neumatic script. One reason why such calligraphic behaviour determined the arrangement of neumes in groups was because the open space above the text was not itself primarily mapped out as a 'spatial metaphor' for pitch.³⁷ Knowledge of the precise pitch pattern of any one melody was stored in memories, and the neumatic notation acted to guide recall. But the two Winchester books offer the chance to watch the development of other, more pitch-oriented techniques. In the syllabic notation for the prose *Regnantem sempiterna* in Cambridge, CCC, ms. 473, the shortening and lengthening of *virga* strokes has clear pitch content indicating rising or descending patterns (fig. 9). That same technique is prominent on many pages of Oxford, BL, ms. Bodley 775, as for example, in the notation for the partially-texted sequence *Iam nunc intonant* (fig. 10a). Here, in close proximity, this music scribe wrote in two ways: for melismatic neume groups he followed the standard procedure, but for syllabic passages he wrote longer, shorter and intermediate length *virgae* with a great deal of care. The contrast of procedures is quite striking when it occurs within one melodic phrase: for the words *Iam nunc intonant preconia*, *virgae* of different lengths and *puncta* are handled to represent relative pitch levels, but the two neumes on the last syllable *-a* (a *torculus* followed by a *pes stratus*) revert to the 'non-syllabic' behaviour (fig. 10b). The main point here is not so much the use of the open space above the text as the length of the individual strokes. The close juxtaposition of the two procedures makes it clear that – in these Winchester notations at least – it is not in the open space that the spatial metaphor for pitch resides, but in the neumes themselves.

That interpretation is underlined by the appearance a quarter of a century later of a different way of handling *virgae* (fig. 11). By the third quarter of the eleventh century, we find notations in which the *virgae* are placed at different heights rather than written in different lengths. On lines 9-11 of fol. 98^r of Cambridge, CCC, ms. 473, a first layer of

37. On the spatial metaphor, see DUCHEZ 1979.



Figure 9. The opening of the sequence *Regnantem superna* with neumes from Cambridge, Corpus Christi College, ms. 473, fol. 122v-123r.

notation, with *virgae* of different lengths, was erased and replaced with notation written by a younger hand. On the lines above and below the old Winchester practice is seen, but on these lines in the middle the *virgae* are more or less of the same length. What differentiates them is their placing at different heights, as also the *puncta*. The contrast between the two techniques is marked, and suggests a new step in the mentalities of notators in relation to the open space above the text. By the last quarter of the century, this way of handling neumes became standard for Winchester notators.

Once the idea got going that the space above the text could be used in this way, it would not be long before ways of making pitch indications more precise emerged. Written long or short, a *virga* was always going to be an imprecise way of indicating pitch, compared to a *punctum*, which sat in one clearly defined vertical position. The simple solution was to write a small notehead at the top of the *virga* (fig. 11b). And immediately after that there appears notation in which the noteheads were written first, and the *virga* stroke second (fig. 11c). With this change from the primacy of the long stroke to that of the notehead, the long deterioration of the old *virga* to the position of a tail attached to a notehead had begun. The final change was to draw lines, before writing neumes onto them. This new technique appears in notations made in Oxford, BL, ms. Bodley 775 in the first half of the twelfth century.

Figure 10a. Oxford, Bodleian Library, ms. Bodley 775, fol. 125^r, section (by kind permission of the Bodleian Libraries, University of Oxford).

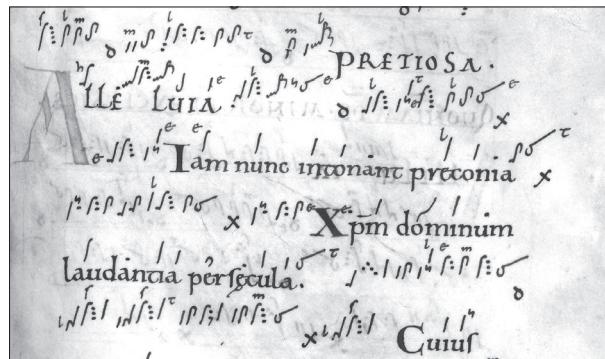


Figure 10b. Passages from the partially-texted sequence *Iam nunc intonant preconia* with neumes from Oxford, Bodleian Library, ms. Bodley 775, fol. 125^r.



During the middle third of the eleventh century at Winchester, ways of thinking about the writing of neumes above text began to alter, leading to a series of changes in calligraphic practice. Read in relation to the introduction of staff notation associated with Guido d'Arezzo, we would not gain much understanding of what actually happened at Winchester. We could only say that a system of writing notes on lines had arrived there sometime in the early twelfth century. Traced within the books of Winchester itself, however, and tied to textual palaeography, it is possible to reconstruct a detailed local history. The joy of the Winchester material is the richness of evidence for a period of major change in the writing of musical notation, illustrating ways in which musical scribes thought about what they wrote, and ways in which calligraphic practice interacted with intended meaning.

What, finally, is the value of such concentrated work on the notation of one centre? Having regard to my promise not to argue from the particular to the general, what we gain is models, examples of how notation might be written by individual scribes, and how it might alter over longer periods of time. Such results can richly inform our work in making transcriptions. In learning to read musical signs, we should not neglect their status as the work of sometimes idiosyncratic, sometimes extremely skilful, calligraphers. Because of the relation between music scripts and what they seek to record, those who wrote neumatic

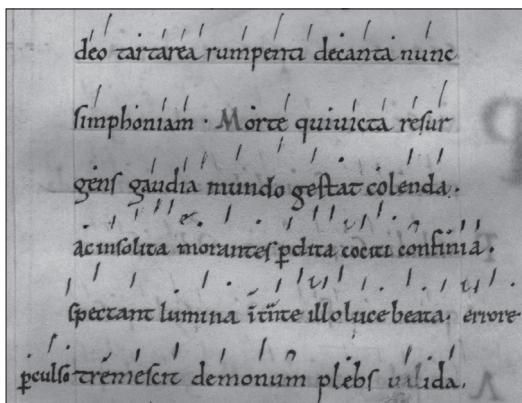


Figure 11a. Cambridge, Corpus Christi College, ms. 473, fol. 98^r, ll. 7-12 (by kind permission of the Master and Fellows of Corpus Christi College, Cambridge).

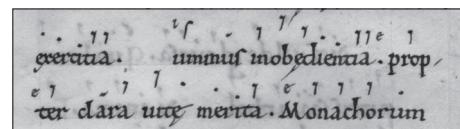


Figure 11b. Cambridge, Corpus Christi College, ms. 473, fol. 158^r, section (by kind permission of the Master and Fellows of Corpus Christi College, Cambridge).

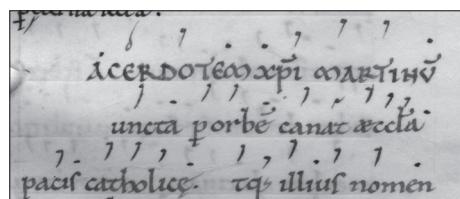


Figure 11c. Cambridge, Corpus Christi College, ms. 473, fol. 158^r, section (by kind permission of the Master and Fellows of Corpus Christi College, Cambridge).

notation could exercise personal judgement about how they notated melodies, using writing to highlight specific musical issues, whether that be habits of performance practice or momentary reminders, as in the Winchester organa notations. As musical palaeographers, we may be mystified by some of the signs and unable now to reconstruct their specific meaning, but we may also see calligraphic diversity as a rich historical resource.

SUSAN RANKIN

BIBLIOGRAPHY

ARLT 1997 : Arlt Wulf, « Anschaulichkeit und analytischer Charakter. Kriterien der Beschreibung und Analyse früher Neumenschriften », in Michel Huglo ed., *Musicologie médiévale. Notations et séquences. Actes de la table ronde du C.N.R.S. à l'Institut de recherche et d'histoire des textes*, 1982, Paris, Honoré Champion, 1987, p. 29-55.

ARLT 1996 : Arlt Wulf, « Σ als Notator », in Wulf Arlt and Susan Rankin, *Stiftsbibliothek St Gallen Codices 484 & 381*, facsimile edition with commentary, 3 vols., Winterthur, Amadeus, 1996, p. 59-78.

ATKINSON 1995 : Atkinson Charles « *De accentibus toni oritur nota quae dicitur neuma: Prosodic Accents, the Accent Theory, and the Palaeofrankish Script* », in Graeme M. Boone ed., *Essays on Medieval Music in Honor of David G. Hughes*, Isham Library Papers, 4, Cambridge, Mass., Harvard University Department of Music, 1995, p. 17-42.

ATKINSON 2003 : Atkinson Charles, « *Glosses on Music and Grammar and the Advent of Music Writing in the West* », in Sean Gallagher *et al.* eds., *Western Plainchant in the First Millennium: Studies in the Medieval Liturgy and its Music in Honor of James McKinnon*, Aldershot, Ashgate, 2003, p. 199-215.

ATKINSON 2009 : Atkinson Charles, *The Critical Nexus: Tone-System, Mode and Notation in Early Medieval Music*, Oxford, Oxford University Press, 2009.

AUGUSTINE : FINNAERT & THONNARD 1947.

AURELIAN OF RÉÔME : GUSHEE 1975.

BANNISTER 1913 : Bannister Henry Marriott, *Monumenti vaticani di paleografia musicale latina, Codices e Vaticanis selecti*, 12, Leipzig, Harrassowitz, 1913.

BARNEY, LEWIS, BEACH & BERGHOF 2006 : *The Etymologies of Isidore of Seville*, trans. Stephen A. Barney, W. J. Lewis, J. A. Beach & Oliver Berghof, Cambridge, Cambridge University Press, 2006.

BEESON 1913 : Beeson Charles Henry, *Isidor-Studien*, Quellen und Untersuchungen zur lateinischen Philologie des Mittelalters, 4/2, München, Beck, 1913.

BIELITZ 1977 : Bielitz Matthias, *Musik und Grammatik: Studien zur mittelalterlichen Musiktheorie*, München, Musikverlag Katzschlager, 1977.

BISCHOFF 1996 : Bischoff Bernhard, « Die europäische Verbreitung der Werke Isidors von Sevilla », in *Mittelalterliche Studien 1*, Stuttgart, Anton Hiersemann, 1996, p. 171-194.

CARDINE 1970 : Cardine Eugène, « Sémiologie grégorienne », *Études grégoriennes*, XI (1970), p. 1-158.

CORBIN 1977 : Corbin Solange, *Die Neumen*, Palaeographie der Musik, I/3, Cologne, Arno Volk, 1977.

COUSSEMAKER 1852 : Coussemaker Charles Edmond Henri de, *Histoire de l'harmonie au Moyen Âge*, Paris, Victor Didron, 1852.

CULLIN 2006 : Cullin Olivier, *L'image musique*, Paris, Fayard, 2006.

DUCHEZ 1979 : Duchez Marie-Élisabeth, « La représentation spatio-verticale du caractère musical grave-aigu et l'élaboration de la notion de hauteur de son dans la conscience musicale occidentale », *Acta musicologica*, LI (1979), p. 54-73.

ERICKSON 1995 : *Musica enchiriadis and scolica enchiriadis*, trans. with introduction and notes by Raymond Erickson, New Haven and London, Yale University Press, 1995.

FINNAERT & THONNARD 1947 : Augustine, *De musica libri sex*, Guy Finnaert & F.-J. Thonnard eds., *Œuvres de Saint Augustin*, ser. 1, Opuscules VII, *Dialogues philosophiques*, IV. *La musique*, Bruges, Desclée, 1947.

GUSHEE 1975 : *Aurelian Reomensis: Musica Disciplina*, Lawrence Gushee ed., Corpus Scriptorum de Musica, 21, Rome, American Institute of Musicology, 1975.

HAINES 2008 : Haines John, « The Origins of the Musical Staff », *Musical Quarterly*, XCI (2008), p. 327-378.

HANDSCHIN 1950 : Handschin Jacques, « Eine alte Neumenschrift », *Acta Musicologica*, XXII (1950), p. 69-97.

HARTZELL 2006 : Hartzell Karl Drew, *Catalogue of Manuscripts written or owned in England up to 1200 containing Music*, Woodbridge, The Boydell Press, 2006.

HILEY 1993 : Hiley David, *Western Plainchant. A Handbook*, Oxford, Clarendon Press, 1993.

HOLSCHNEIDER 1968 : Holschneider Andreas, *Die Organa von Winchester: Studien zum ältesten Repertoire polyphoner Musik*, Hildesheim, Olms, 1968.

HUGHES 1934 : Hughes Anselm ed., *Anglo-French Sequelae from the Papers of the late Henry Marriott Bannister*, Burnham, Plainsong and Mediæval Music Society, 1934.

HUGLO 1954 : Huglo Michel, « Les noms des neumes et leurs origines », *Études grégoriennes*, I (1954), p. 53-67.

HUGLO 1963 : Huglo Michel, « Le domaine de la notation bretonne », *Acta musicologica*, XXXV (1963), p. 54-84.

ISIDORE OF SEVILLE : LINDSAY 1911.

ISIDORE OF SEVILLE : BARNEY, LEWIS, BEACH & BERGHOF 2006.

LEVY 1987 : Levy Kenneth, « On the Origin of Neumes », *Early Music History*, VII (1987), p. 59-90.

LEVY 1998 : Levy Kenneth, *Gregorian Chant and the Carolingians*, Princeton, New Jersey, Princeton University, 1998.

LINDSAY 1911 : *Isidori Hispalensis episcopi Etymologiarum sive Originum libri XX*, Wallace M. Lindsay ed., 2 vols., Oxford, Clarendon Press, 1911.

Paléographie musicale I : *Le Codex 339 de la Bibliothèque de Saint-Gall (x^e siècle). Antiphonale missarum sancti Gregorii*, Paléographie musicale, I, introduction by André Mocquereau, Solesmes, Abbaye Saint-Pierre, 1889.

PHILLIPS 1984 : Phillips Nancy, *Musica and Scolica enhiriadis. The Literary, Theoretical, and Musical Sources*, Ph.D. diss., New York University, 1984.

PHILLIPS 2000 : Phillips Nancy, « Notationen und Notationslehren von Boethius bis zum 12. Jahrhundert », in Thomas Ertelt & Frieder Zaminer eds., *Geschichte der Musiktheorie*, 4. *Die Lehre von einstimmigen liturgischen Gesang*, Darmstadt, Wissenschaftliche Buchgesellschaft, 2000, p. 293-623.

POWERS 1980 : Powers Harold, « Language Models and Musical Analysis », *Ethnomusicology*, XXIV (1980), p. 1-60.

RANKIN 1994 : Rankin Susan, « Carolingian Music », in Rosamond McKitterick ed., *Carolingian Culture: Emulation and Innovation*, Cambridge, Cambridge University Press, 1994, p. 274-316.

RANKIN 2005 : Rankin Susan, « Making the Liturgy: Winchester Scribes and their Books », in Helen Gittos & M. Bradford Bedingfield eds., *The Liturgy of the late Anglo-Saxon Church*, Henry Bradshaw Society subsidia ser. 5, London, Henry Bradshaw Society, 2005, p. 29-52.

RANKIN 2007 : Rankin Susan, *The Winchester Troper. Introduction and Facsimile*, Early English Church Music, 50, London, Stainer and Bell, 2007.

RANKIN 2011 : Rankin Susan, « On the Treatment of Pitch in Early Music Writing », *Early Music History*, 30 (2011), p. 105-175.

SCHMID 1981 : Schmid Hans ed., *Musica et scolica enhiriadis una cum aliquibus tractatulis adiunctis*, Veröffentlichungen der Musikhistorischen Kommission, 3, München, Bayerische Akademie der Wissenschaften, 1981.

STÄBLEIN 1975 : Stäblein Bruno, *Schriftbild der einstimmigen Musik*, Musikgeschichte in Bildern, III/4, Leipzig, Deutsche Verlag für Musik, 1975.

SUÑOL 1935 : Suñol Gregorio Maria, *Introduction à la paléographie musicale grégorienne*, revised, translated, and with a preface by André Mocquereau, Paris and Tournai, Desclée, 1935.

TREITLER 1982 : Treitler Leo, « The Early History of Music Writing in the West », *Journal of the American Musicological Society*, XXXV (1982), p. 333-372.

TREITLER 2003 : Treitler Leo, *With Voice and Pen: Coming to Know Medieval Song and How it was Made*, Oxford, Oxford University Press, 2003.

5

La notation neumatique bretonne : manuscrits et centres de diffusion (x^e-xii^e siècle)

Il ne renonça pas non plus à apprendre la mélodie ecclésiastique car il avait une voix très élégante et plus claire que celle de ses condisciples. C'est pourquoi, comme sa voix agréable délectait par sa digne clarté les oreilles de l'archevêque qui régissait alors la cour doloise, ce même pasteur nommé Tyarmael choisit cette recrue pour fils adoptif¹.

Michel Huglo publiait en 1963 une étude novatrice consacrée au domaine de la notation bretonne². Née vraisemblablement à la fin du ix^e ou au tout début du x^e siècle, à l'époque où la Bretagne continentale subissait d'importants bouleversements, elle dérive probablement de la notation paléofranque³, ce qui pourrait laisser à penser qu'elle a pu évoluer à partir d'un centre du Nord de la *Francia*.

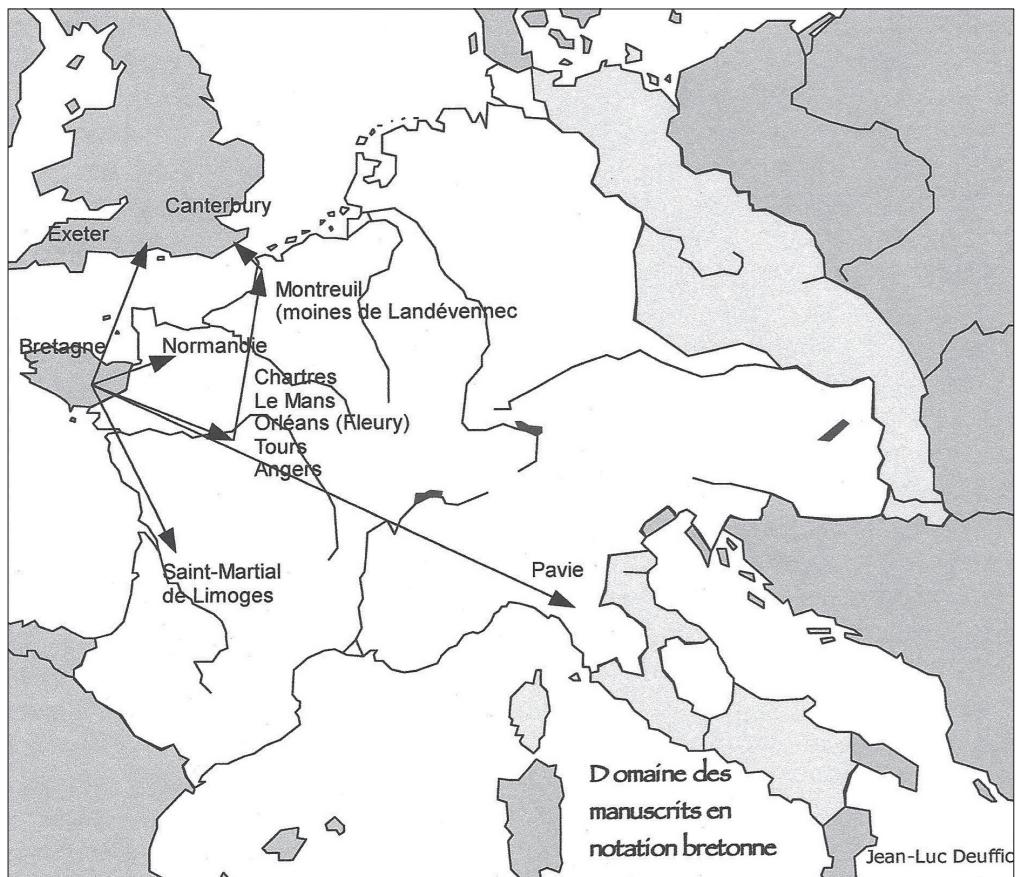
Nous nous proposons ici de faire un état des principaux manuscrits notés en neumes bretons en reprenant largement la documentation de Michel Huglo, et d'examiner par ailleurs les différents centres de diffusion. Ces derniers doivent être mis en parallèle avec la présence importante, au lendemain des invasions normandes du ix^e et du début du x^e siècle, de Bretons exilés dans des établissements monastiques renommés comme le furent Fleury (Saint-Benoît-sur-Loire) ou Saint-Père de Chartres⁴, certains ayant trouvé refuge outre-Manche auprès du roi anglo-saxon Aethelstan. D'autre part, la question se pose de sa présence en Italie du Nord, plus exactement à Pavie, où elle s'est manifestement développée sous l'influence du milieu. En témoigne l'insigne graduel du chapitre d'Ivrée.

1. *Vita Turiavi*, dans *Acta Sanctorum*, Jul., III, c. 2, p. 617. MERDRIGNAC 1985, I, p. 105.

2. HUGLO 1963. Nous avons donné une édition légèrement revue de cette étude dans une collection éphémère, *Britannia Christiana*, I (1981), p. 12-52, plus cartes et illustrations. C'est à cette dernière que nous faisons désormais référence.

3. HOURLIER 1996, p. 20 : « mêmes neumes courts, menus, serrés ; même fréquence de points ; mêmes formes, à peine évoluées. Mais le trait oblique, par exemple la *virga*, ne représente plus qu'un seul son, aigu ; un trait horizontal distingue maintenant la première note du *torculus* ; le *porrectus* comporte trois éléments, et non plus deux seulement. »

4. Pour une vue d'ensemble sur cette période, DEUFFIC 2006.



D'une manière générale, et malgré la disparition de nombreux manuscrits, l'étude du « reliquat » permet d'obtenir tout de même une idée assez précise du champ de pratique de la notation bretonne sur la période du x^e-xii^e siècle.

EN BRETAGNE

Diocèse de Cornouaille

Située à l'extrême ouest de la péninsule armoricaine, l'abbaye Saint-Guénolé de Landévennec, fleuron de la culture carolingienne bretonne, vivifia les études et la création hagiographique des saints fondateurs⁵ et magnifia le chant⁶. Un scriptorium très actif du ix^e au xi^e siècle y a produit des manuscrits liturgiques, dont le plus ancien porte un court passage en notation bretonne.

5. MERDRIGNAC 2005. Pour une approche générale du monastère breton voir SIMON 1985 et les actes du colloque du 15^e centenaire de l'abbaye dans SIMON 1986. Avant 818, date d'un diplôme de Louis le Pieux, le monastère vivait sous tradition « celtique » (règle et tonsure particulières).

6. Un passage de la *vita Pauli*, composée en 884 par le moine de Landévennec Uurmonoc, fait allusion à l'*organum*, qui ne pouvait se pratiquer que dans des églises possédant un personnel de chantres bien formés. HUGLO 1986-1 et 1989, repris dans HUGLO 2005-2, essais XV et XVI.

- New York, Public Library, ms 115⁷

Evangelia. 152 folios. 278 x 206 (200 x 128) mm. 29 longues lignes à la page, sauf le quaternion IV qui en comporte 28 (f^{os} 22-29) et le quaternion XVI, 26 (f^{os} 117-124). Écriture caroline de la seconde moitié du IX^e siècle.

« The Harkness Gospels », du nom d'Edward Harkness (le donateur), lui-même l'ayant obtenu de la collection de Sir Thomas Philips (4558), célèbre collectionneur anglais, est sans conteste le codex le plus représentatif du scriptorium de Landévennec. De fait, cet évangéliaire, bien connu des spécialistes, a donné lieu à plusieurs études très détaillées. Comme les autres livres liturgiques de Landévennec, le manuscrit de New York donne les trois fêtes caractéristiques célébrées dans le monastère cornouaillais : 3 mars, *Sancti Uuinualoei*; 28 avril, *Translatio beati Uuinualoei confessoris*; 11 mai, *Dedicatio basilice sancti Uuinualoei confessoris*. On retrouve les mêmes lectures dans l'évangéliaire d'Oxford (Bodleian Library, Auct. D2 16). Au reste, la décoration de ces deux manuscrits présente de grandes similitudes : évangéliste Marc avec tête de cheval⁸, tracé des yeux, réglure, etc. L'histoire des Évangiles de New York reste complexe mais il semble bien – d'après certaines additions particulières, d'une autre main – avoir séjourné en Angleterre dès le début du X^e siècle, peut-être dans la région de Winchester, où le roi anglo-saxon Aethelstan tenait sa cour et auprès duquel s'était regroupée une importante colonie de Bretons.

L'une des originalités de ce manuscrit reste ce bref passage en notation neumatique bretonne : *Heli, Heli, lema Sabacthani, hoc est, deus meus, deus meus, ut quid dereliquisti me?* (f^o 48), que Michel Huglo a excellemment analysé au colloque du 15^e centenaire de l'abbaye de Landévennec (1985). Quelques exemples carolingiens de cet appel du Christ noté subsistent pour le IX^e siècle⁹. En ce qui concerne le copiste, C. R. Morey a démontré qu'il disposait d'un modèle insulaire¹⁰, comme le prouvent certaines particularités graphiques (*pasio, hoderunt*). Rand donne la liste des abréviations employées : c'est l'habituelle rencontre au sein d'un même manuscrit de symboles continentaux et insulaires. Plus instructive est l'enquête de Kraeling sur les textes eux-mêmes. La comparaison avec l'édition de Wordsworth et White du *Novum Testamentum Latine*¹¹ montre, pour la lettre dédicace de Jérôme à Damase, 55 variantes dont 40 peuvent être mises en rapport avec d'autres manuscrits (London, British Library, Egerton 23 et Armagh 22), d'où la conclusion de Kraeling : la lettre dédicace appartient à la *famille celtique* de la Vulgate. En revanche, l'exposé sur l'utilisation des tables de Canons par le même Jérôme appartient à la famille « K » (*Karolini*), version alcuinienne établie sur le continent. Le prologue des quatre évangiles relève lui aussi de la tradition continentale, mais avec des graphies insulaires. Il en est de même des *capitula* de Matthieu. En revanche, celles des trois autres évangelistes sont proches des versions celtiques¹².

7. MOREY 1929; MOREY, RAND & KRAELING 1931; CHALKER 1937; HARTZELL 1981; DEUFFIC 1985-1; GUILLOTEL 1985, p. 12; HUGLO 1986-2; GNEUSS 2001, p. 133, n. 866; BISHOFF 2004, p. 320, n° 3625; ALEXANDER, MARROW & SANDLER 2005, n° 6.

8. LEMOINE 1994.

9. SNIŽKOVÁ 1988.

10. Les premiers copistes bretons armoricains utilisent une écriture insulaire (Leyde, Universitätsbibliothek Voss. Lat. F. 96A), ou semi-ondiale (Orléans, BM 302, Sedulius, *Carmen Paschale*; London, British Library, Egerton 609, *Evangelia*, Saint-Gatien de Tours) et, de ce fait, l'original pourrait être du scriptorium même de Landévennec.

11. WORDSWORTH & WHITE 1889-1898.

12. Communication Louis Lemoine.

• Quimper, Archives départementales du Finistère, 4J 96¹³

Missel. 47 folios, 315 × 175 (285 × 170) mm sur 2 colonnes de 33 lignes.

L'Évangéliaire de Landévennec, de la Bodleian Library d'Oxford (Auct. D. 2. 16), étant dépourvu de notation, il ne nous reste comme témoin de la notation bretonne à l'abbaye de Saint-Guénolé qu'un missel, connu sous le nom de « Missel de Saint-Vougay » et conservé aux Archives départementales du Finistère.

L'étude hagiologique des litanies du samedi saint, où figure Guénolé – le fondateur de Landévennec –, a permis de considérer cet ouvrage comme une production du scriptorium cornouaillais à l'usage d'une église particulière, très probablement Locquéolé¹⁴. Cette « relique », dont il ne reste plus que quelques feuillets datés de la fin du XI^e ou du tout début du XII^e siècle, porte une notation un peu plus épaisse que celle du manuscrit de Chartres BM 47. On y remarque les lignes significatives « q », « l », des signes tironiens et le signe « dl » servant à indiquer la répétition d'incises mélodiques.

Diocèse de Léon

• Paris, Bibliothèque Mazarine 421¹⁵

Missel. 1 + 114 folios. 1) f° 1-44, XIII^e siècle; 2) f° 45-115; 282 × 195 (247 × 150) mm, 28 longues lignes. XI^e siècle. Feuilllets intervertis. La première partie est notée en neumes-points liés français sur 4 lignes rouges, la seconde en neumes bretons.

Avec Saint-Vougay nous atteignons le diocèse de Léon, d'où provient également ce missel à l'usage du prieuré de Bréventec, une dépendance de l'abbaye bénédictine de Saint-Mathieu du Finistère. Ce manuscrit, composé de deux parties rassemblées au XIII^e siècle, produit une liste d'*alleluia* des dimanches après la Pentecôte comparable à celle des autres livres liturgiques bretons. La notation y est « caractérisée par l'allongement de la branche horizontale des *clivis*, la forme arquée du premier élément de certains *podatus* et par l'emploi de formes liquescentes particulières rappelant la lettre grecque *alpha* renversée¹⁶»; *virga* en ekphonèses (f° 48).

13. PLAINE 1877; POTHIER 1877; LA VILLEMARQUÉ 1890; DUINE 1906, p. 157-159, n° 61; DUINE 1922, p. 57-59, n° XXXIII; HUGLO 1963, p. 18-19; DEUFFIC 1982; Trésors 1989, p. 65-66, n° 4; Archéologie 1990, n° I, p. 41. Pour les litanies, voir TANGUY 2002.

14. Canton de Taulé. *Locus Guennolay* vers 1330. Voir TANGUY 1990, p. 120-121. C'est une ancienne enclave de l'évêché de Dol en Léon qui, avant le XI^e siècle, portait le nom de *Lancolvet* (Cartulaire de Landévennec), devenant au milieu du XII^e siècle l'*ecclesia s. Guingaloci*. Les reliques de saint Guénolé (parties du chef et du bras) y étaient portées en procession, le jour de l'Ascension (*Tro ar relegou*), dans un buste et un bras d'argent. La charte 37 du Cartulaire raconte la fondation d'un monastère en ce lieu par saint Guénolé, auquel fut adjoint le territoire entre Penzé et Dossen, rivières limitant Locquéolé, représentant ainsi la possession la plus éloignée en Domnonée de l'abbaye cornouaillaise. LARGILLIÈRE 1942.

15. DUINE 1906, p. 169-170; DUINE 1922, p. 5-77; LEROQUAIS 1924, I, p. 180-181; *Graduel* 1957, p. 93; HUGLO 1963, p. 19. Sur la liste alléluiaistique, HUGLO 1954, p. 176. Pour la description et la liste des chants notés, BERNARD 1966, p. 25-29, pl. IV (f° 14^v, f° 18), V (f° 71^v).

16. HUGLO 1963, p. 19.

Diocèse de Saint-Malo

- Paris, BnF, Lat. 11589¹⁷

Sacramentaire. 178 folios à longues lignes. 380 × 240 mm. Grandes initiales à entrelacs jaunes, outremer, noir et carmin relevées d'un pointillé noir ou rouge.

De l'est de la Domnonée, issu d'un scriptorium malouin, peut-être celui de l'abbaye de Saint-Méen-de-Gaël (autre grand établissement du monachisme breton carolingien), ce sacramentaire de la fin du X^e ou du début du XI^e siècle présente, à côté de neumes français et messins pratiquement contemporains du texte primitif, deux passages en notation bretonne (f^os 60^v et 102). Le manuscrit fut probablement en usage dans un établissement du nord de la *Francia* (Corbie? Saint-Riquier?) en contact avec les Bretons. Les saints mythiques de l'abbaye Saint-Méen-de-Gaël, en l'occurrence Méen et Judicaël, figurent au calendrier avec des messes en leur honneur.

Diocèse de Dol

- Vannes, Archives départementales du Morbihan¹⁸

220 × 160 mm. Ce fragment tiré d'un registre paroissial de Monterrein est constitué d'un feuillet de missel du début du XII^e siècle. Il contient la messe *Salus populi*, du XIX^e dimanche après la Pentecôte. Le verset alléluiatique *Redemptionem* figure à cette place dans le missel à l'usage de Dol, imprimé en 1502. La notation est épaisse avec un *punctum* carré ou rectangulaire.

Diocèse de Rennes

L'antique abbaye Saint-Melaine de Rennes, sise au diocèse de Rennes, a produit quelques beaux manuscrits dont un missel du début du XII^e siècle et l'office du saint fondateur.

- Paris, Bibliothèque nationale de France, Lat. 9439¹⁹

Missel à l'usage de l'abbaye Saint-Melaine de Rennes. Parchemin. 211 folios à longues lignes. 206 × 180 mm. Début du XII^e siècle. Incomplet de la fin. Notation neumatique bretonne. Provenance: abbaye Saint-Gatien de Tours. Acheté par la « Bibliothèque Royale » le 27 avril 1831, « au poids du parchemin ».

Michel Huglo a remarqué dans ce missel une disposition liturgique particulière: l'ensemble des pièces de chant précède la collecte, les lectures et autres oraisons. Cet ordonnancement se retrouve dans d'autres livres liturgiques bretons²⁰. Au point de vue musical, signalons quelques pièces rares²¹ au f^o 115 l'alleluia *Noli flere Maria* (IV^e dimanche après Pâques), au f^o 119^v l'alleluia *O rex gloriae* (V^e verset de l'Ascension), adapté sur l'alleluia *Justi epulentur*, et au f^o 175 l'alleluia *Isti sunt sancti qui venerunt*.

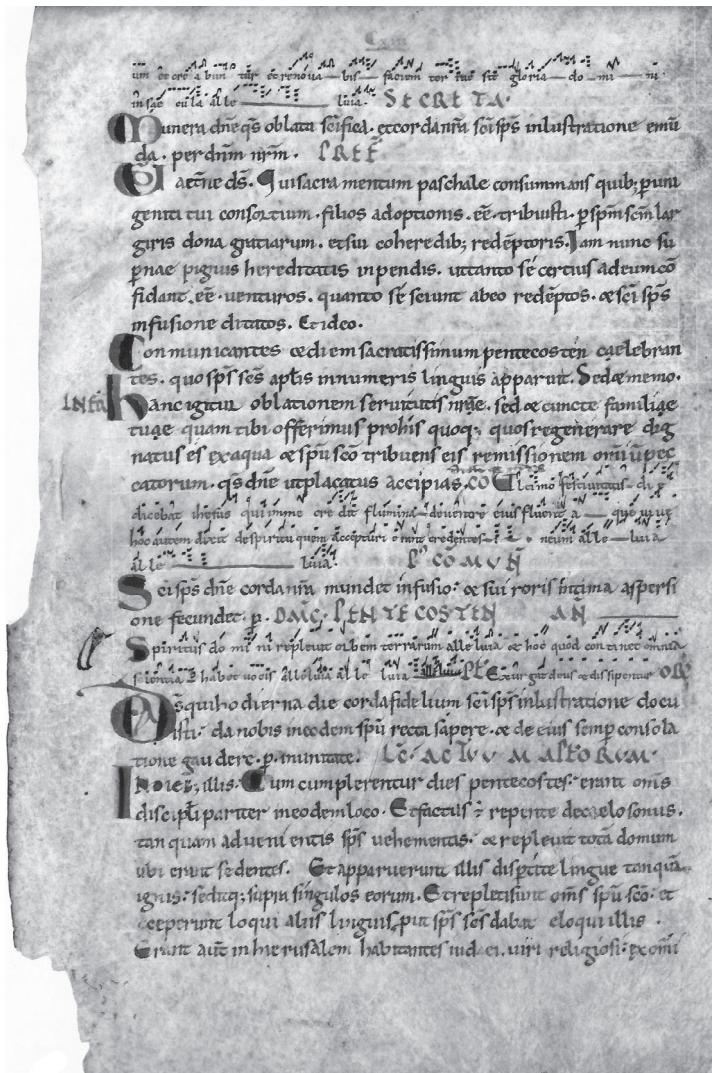
17. DELISLE 1886, p. 246 (reproduction de la préface de saint Samson); DUINE 1922 n° 21, p. 23-33 (avec édition de la messe de saint Samson): Duine le donne comme sacramentaire d'une église du Nord de la France; LEROQUAIS 1924, I, p. 110-113, n° 45; GROSJEAN 1956, p. 479, note 8, p. 480; *Graduel* 1957, p. 104; HUGLO 1953; HUGLO 1963, p. 19-20, pl. IV (f^o 102).

18. HUGLO 1963, p. 22-23.

19. DUINE 1906, n° 5, p. 13-26; DUINE 1922, n° 47; *Graduel* 1957, p. 102; HUGLO 1963, p. 21; LEROQUAIS 1924, I, n° 112, p. 242. Missel noté de Saint-Melaine de Rennes (XII^e s.) dans *Notices* 1884, p. 188-189; LENOBLE 1982.

20. Paris, BnF, Lat. 11589 ou Angers, BM 91, par exemple.

21. Sur les alleluia, voir SCHLAGER 1965 et SCHLAGER 1968.



Paris, Bibliothèque
nationale de France,
Lat. 9439, f° 121^v.

La messe *Sperent in te* du second dimanche de Carême (*Dominica vacat*), propre aux manuscrits bretons et à quelques graduels de l'Italie du Nord, y est présente. « La notation est menue et, quoique soignée, souvent tassée en raison du manque d'espace suffisant » : *punctum* rectangulaire, très menu et régulier ; ça et là des lettres significatives : *q* (*equaliter*), surtout aux f°^{os} 121^v et suivants ; *f* (par ex. f° 22, 154), etc. Au f° 120, la communion *Pater cum essem* qui était laissée sans notation a reçu de fins neumes français, addition probablement effectuée à Tours²². Le calendrier ne porte ni la fête de saint Thomas de Cantorbery (canonisé en 1173) ni celle du Saint-Sacrement. Plusieurs marques de grattage, solennités ajoutées. Quelques obits : au 15 juin, *Ob. bone memorie fratris Matthei de Selleyo, anno 1312*²³.

22. HUGLO 1963, p. 21.

23. Cellé, dans l'ancien diocèse du Mans?

• Vatican, Biblioteca apostolica vaticana, Reg. Lat. 486²⁴

Office et vie de saint Melaine de Rennes. Parchemin. Recueil factice (Austremoine, Melaine, Marie l'Égyptienne, Hilaire, Genes d'Arles). 215 × 140 (160/165 × 105) mm. f^{os} 54-62, *vita*, notice de Grégoire de Tours, IX^e/X^e siècle ; f^{os} 66-68, office monastique, add. XI^e/XII^e siècle. Indications de leçons. 18 lignes à la page pour la partie notée avec neumes bretons. *Punctum* carré mais fin ; le premier élément du *pes* et du *torculus* légèrement cambré ; *clivis* très pointue. « L'ensemble donne une impression d'aisance et de soin, qui contraste avec l'apparence fruste des manuscrits » de Basse-Bretagne.

Diocèse de Vannes

Le monastère de Saint-Sauveur de Redon, fondé en 832 par un diacre de la cathédrale de Vannes, Conwoion, au confluent de l'Oust et de la Vilaine, fut reconnu deux ans après par Louis le Pieux. À la frontière du domaine franc, il représentait un élément de propagande des idées carolingiennes vers la Bretagne occidentale.

• Vatican, BAV, Vat. Lat. 9668²⁵

Homiliaire de l'abbaye Saint-Sauveur de Redon (?). Parchemin. 260 × 175 mm, 170 folios en tout (ancienne foliation 167). 30 longues lignes. XI^e-XII^e siècle. Mutilé. Indication de leçons. Possesseurs : Collège de Clermont, Cardinal Angelo Mai. Recueil factice composé de deux parties dont la première (f^{os} 1-31) provient probablement de Redon. La seconde (f^{os} 32-70), produite au Mont Saint-Michel, reste un témoignage des relations privilégiées entretenues entre la Bretagne et le Mont²⁶. Aux f^{os} 1-9, la vie de saint Marcellin ; f^{os} 10-13^r, translation du corps de saint Clément (primitivement à la fin du volume) ; f^{os} 14-31, recueil de miracles de la Vierge avec la messe de la Conception de la Vierge au f^o 26.

L'office à la gloire de saint Marcellin est noté en neumes bretons d'une grande clarté. « Le *punctum* est un petit carré régulier. Le premier élément du *pes* et de la *clivis* est bref et net. Le *torculus* se fait remarquer par la hauteur de son arc, souvent très aminci²⁷. »

Les moines de Saint-Gildas de Rhuys et de Saint-Sauveur de Moréac (Locminé), conduits par leurs abbés Tanet et Daioc, fuyant les Normands, emportèrent reliques et manuscrits, et se réfugièrent auprès d'Ebbes, seigneur de Déols, peu après 917. Un catalogue de la bibliothèque carolingienne des communautés en exil²⁸, probablement rédigé à cette époque, a fait l'objet d'une édition récente²⁹. La liste intègre plusieurs ouvrages liturgiques dont *duos antiphonarios bretonicos et unum novum*, expression qui semble bien différencier deux antiphonaires en notation neumatique bretonne (semblable au codex 47 de Chartres), témoignant ici de sa plus haute antiquité.

24. BANNISTER 1913, p. 107-108, n° 290, pl. 61 (f^{os} 67^v-68^r) ; WILMART 1945, p. 675-676 ; HUGLO 1963, p. 22, pl. XI (f^o 67^r), XII (f^o 67^r), XIII (f^o 68^r) ; SALMON 1968, IV (1971), n° 102 ; DEUFFIC 1986, p. 318, n° 111.

25. EHRENSBERGER 1897, p. 79 ; PONCELET 1910, p. 239 et suivantes, BANNISTER 1913, p. 109, n° 292, pl. 62b (f^o 4^v) ; SALMON 1968, IV, p. 200 ; MEYVAERT 1956 ; HUGLO 1963, p. 25, pl. VII (f^o 7^r), VIII (f^o 7^v), IX (f^o 9^r), X (f^o 9^v) ; AVRIL 1964, p. 492-504 ; AVRIL 1965, p. 246-247 ; BEYERS 1995, p. 364.

26. Aux dires de Bernard, pèlerin pour la Terre sainte, le Breton *Phinimontius* gouvernait l'abbaye (ca 867). Un nécrologue montois (Avranches, BM 214) du XIII^e siècle comporte 41 noms de moines de Redon.

27. HUGLO 1963, p. 26.

28. Paris, Bibliothèque Sainte-Geneviève, 3340, pièce 23.

29. VALÉRY 2005.

Diocèse de Nantes

• Angers, BM 91³⁰

Sacramentaire avec graduel inséré, x^e siècle. 284 folios, 224 × 165 mm. Reliure bois et peau, planche.

Provenance: abbaye Saint-Aubin d'Angers. Certaines analyses ont suggéré comme origine de cet ouvrage Saint-Pierre d'Angers. Pour notre part, l'importance donnée aux saints nantais nous oriente vers une église de ce diocèse en contact avec l'Anjou et le Saumurois, peut-être possessionnée ou en contact avec l'abbaye Saint-Aubin d'Angers. Le manuscrit entra rapidement dans la *libraria* du monastère angevin, comme en témoignent les neumes français ajoutés sur quelques pièces (f^{os} 220^v et 223). L'ensemble du graduel est en notation bretonne, « une notation très fruste [...] sans finesse et sans élégance », identique à celle utilisée dans certains manuscrits de « Basse-Bretagne ».

Titres en onciales. Capitales ornées (cf. f^{os} 10, 25, 26).

f^{os} 1-9. *Capitula* (entre autres, f^o 9, *missa de sancto Briccio, episcopo*)

f^o 9^v. *Incipiunt capitula dierum in quibus non oportet nec vindemia vindemiare...*

f^{os} 11-14. Années embolismiques, années solaires et lunaires, termes de Pâques

f^o 14. Calendrier :

29 janvier. *Natal. sci Gildasii abb.*³¹

1^{er} février. *Sce Brigitte virg.*

1^{er} mars. *Andegavis nat. sci Albini epi.*

25 mars. *Et sci Armelandi abb.*

28 avril. *Et sci Winvaloey abb.*

1^{er} mai. *Et sci Corentini epi.*

24 mai. *Nan[n]etensis, passio sanctorum Donatiani et Rogatiani mr.*

17 juin. *Na[n]etensis civit., natal. sci Similiani epi.*

30 juin. *Andegavis, natal. sci Albini epi.*

1^{er} juillet. *Et sci Gildasii abb.*

11 juillet. *Natal. sci Machuti epi et sci Benedicti abbatis.*

28 juillet. *In Britania, natal. sci Sa[m]sonis epi.*

19 août. *Et aparicio sce Crucis Aurelianis.*

11 octobre. *Redonis civit., natal. sci Melanii epi.*

16 octobre. *Dedic. ecclesiae sci Micahelis in periculo maris.*

24 octobre. *Natal. sci Martini abbatis Vertavensis.*

6 novembre. *Redonis civit., dep[ositio] sci Melanii epi.*

15 novembre. *In Britannia, natal. sci Machuti epi.*

f^o 23^v. *Carmen ad fluxum sanguinis.*

f^o 130^v. Litanies du samedi saint: Donatien et Rogatien, Martin, Hilaire, Brice, Grégoire, Martial, Aubin, Philibert, Ermeland, Florent, Patrice, Ouen, Séverin, Columban, Melaine, Malo, Paterne, Gildas, Guénolé...

30. LEMARCHAND 1863, p. 23; c, pl. XXII et p. 148; *Paléographie musicale XI*, p. 47, n. 3; *Catalogue général XXXI*, p. 215-216; DUINE 1906, p. 207; DUINE 1922, n° 25 en soulignant comme origine « une abbaye [...] qui paraît plutôt voisine de la région nantaise »; LEROQUAIS 1924, I, p. 71, n° 27; *Graduel* 1957, p. 25 (*Fle I*); GAVEL 1959; HUGLO 1963, p. 18, 24 et n. 60, p. 49; WICKERSHEIMER 1966, p. 13-14, n° 2; OURY 1967; GAMBER 1968, p. 2, n° 1390; VEZIN 1974, p. 159-160; HILEY 1980; *Catalogue* 1984, p. 551; KARP 1998, p. 138; LIUZZA 2001, p. 203, n. 101; BISCHOFF 2004, II, p. 18 (« mit bretonischen symptomen »); BORST 2004; NOISEUX 2004.

31. Plusieurs fêtes ont curieusement été doublées: Gildas, Aubin, Malo (= Macut), Melaine.

f° 203. Messe de saint Samson (confesseur pontife). *Statuit ei Dominus. Oraison: Omnipotens... qui in sanctis... Secrète: Haec hostia... Préface: Sursum cordibus erectis... Postcommunion: Deus, qui nos hanc diem...*

f° 261. *Missa in honore sancti Sigismundi regis et martyris.*

Parmi les saints du calendrier on notera quelques groupes particuliers: Gildas (29 janvier), Donatien et Rogatien (24 mai), Similien (17 juin), Ermeland (25 mars), Martin de Vertou, pour le pays de Nantes; Malo (au 11 juillet et 15 novembre), Samson, Melaine de Rennes (au 11 octobre et 6 novembre) pour la Haute-Bretagne; Guénolé (28 avril) et Corentin (1^{er} mai) pour la Cornouaille; Aubin (30 juin), Maurille et Florent pour l'Anjou. Le patron de l'église pour lequel ce livre fut écrit était saint Pierre.

Manuscrits bretons d'origine inconnue

• Leyde, Rijksuniversiteit Bibliotheek, BPL, 25³²

Parchemin. 43 folios, 335 x 230 mm. 33 lignes. x^r siècle. Peut-être breton (Bischoff). 310 x 217 (224 x 120) pour les gardes, 24 lignes.

Les trois feuillets de garde (f^{os} 1, 42 et 43) d'un commentaire de Boèce sur le *Peri hermeneias* d'Aristote proviennent d'un antiphonaire (dernier tiers du ix^e siècle) et comportent les offices du 3 mai, de l'Ascension et de plusieurs dimanches après la Pentecôte.

• Oxford, Bodleian Library, Auct. F.4.26³³

Ovide, *Fasti*. XIII^e siècle. 205 x 125 (192 x 125) mm.

Le premier folio est un fragment d'antiphonaire contenant les antiennes du psautier ferial avec une notation très archaïque. Lettres significatives: « C », « q ». Deuxième tiers du ix^e siècle selon Bischoff. Il s'agit ici d'un des plus anciens témoins de la notation bretonne.

• Paris, Bibliothèque Mazarine, 1707³⁴

Vies de saintes (Marie l'Égyptienne, Théophalie, Euphrasie). Parchemin. 96 folios, 148 x 111 (100 x 66) mm. 17 longues lignes. x^e siècle.

Notation très pure, voisine de celle de l'*antiphonale* de Chartres (ms 47). Axe breton. Provenance: Carmes déchaussés de Saint-Joseph, à Paris.

• Paris, Bibliothèque Sainte-Geneviève, 223³⁵

Homéliaire. Parchemin. 100 folios, 276 x 195 mm. xii^e siècle. Provenance: abbaye du Jard (ancien diocèse de Meaux): *Iste liber est S. Johannis de Jardo. Quicumque eum furatus fuerit, vel titulum istum deleverit, anathema sit* (XIII^e siècle).

Les quatre pages de garde (x^e siècle) proviennent d'un antiphonaire en notation bretonne semblable au fragment de Leyde: répons et antiennes de la Sagesse, puis de Job.

32. KLIBANSKY & REGEN, p. 146; BISCHOFF 2004, II, p. 39, n° 2135.

33. MADAN 1895, vol. III, n° 8868; STAINER 1913, p. xxii et pl. IX.; HUGLO 1963, p. 28; GAMBER 1968, II, n° 1304b; HUGLO 1990, p. 247; BISCHOFF 2004, II, p. 358, n° 3773 (« West Frankreich »).

34. *Graduel* 1957, p. 3; HUGLO 1963, p. 27; BERNARD 1966 ,p. 41, pl. VIII (f° 89^v, f° 90); CULLIN 1981, n° 22.

35. *Paléographie musicale II-III*, pl. 82; KOHLER 1893, I, p. 132-135; BERNARD 1965, p. 33, pl. 5; HUGLO 1963, p. 28.

• Valenciennes, Bibliothèque municipale 407³⁶

Fragment d'un gradué du X^e siècle tiré d'une reliure d'un manuscrit de l'abbaye de Saint-Amand (œuvres de Virgile). Pièces des fêtes de la Ve semaine de Carême et de l'Octave de Pâques. Même ordonnance liturgique que dans l'antiphonaire 47 de Chartres.

• Vatican, BAV, Reg. Lat. 552³⁷

Eusèbe, *Histoire ecclésiastique*. Fin du IX^e siècle. Provenance : abbaye de la Couture du Mans.

La feuille de garde est issue d'un missel où l'on remarque la communion *Nemo te* avec notation bretonne très pure.

• Saint-Paul-en-Carinthe, Benediktinerstifts, 27.4.35³⁸

Fragment (bifolium) d'un gradué contenant les pièces des jeudi et vendredi saints, mardi et mercredi de Pâques. XI^e siècle.

HORS DE BRETAGNE

Chartres

Le gradué de Chartres, ancien manuscrit 47 de la Bibliothèque municipale, à l'origine de l'expression « notation chartraine » pour désigner jadis la notation bretonne, reste un témoignage important de sa diffusion. Les liens entre Chartres et la Bretagne, de toute ancienneté, se sont affirmés à l'époque de l'exode des corps saints hors de Bretagne. Le fondateur du diocèse de Tréguier, Tugdual, fut honoré par les chartrains qui conservaient de lui de précieux restes dans un reliquaire où l'on voyait « sur la couverture quelque point d'histoire de la vie » du saint³⁹. Au reste, l'église de Tréguier continua jusqu'à la fin du Moyen Âge d'utiliser des livres liturgiques à « l'usage de Chartres », encore présentés dans l'inventaire de 1626⁴⁰. Turiaw, le saint évêque du monastère de Dol, était de même glorifié par la cathédrale Notre-Dame : « À main gauche en entrant est une gran [...] chasse ou est le corps de st Turien E de [...] en Bret. qui mourut en 841 Hugues de [...] Chartre la fit couvrir d'argent en 12 [...] »⁴¹. Sur ce reliquaire couvert de vermeil doré, le saint était représenté « en relief... dans un portique enrichy de pierreries »⁴².

Outre la cathédrale, le monastère de Saint-Père de Chartres, où reposait le corps de saint Guilduin (27 janvier 1077), chanoine de Dol, était certainement en contact avec la Bretagne depuis que Nordoard, évêque de Rennes, et Mabbon, évêque de Saint-Pol-de-Léon, avaient souscrit à sa fondation en 954. L'expression *scottisca littera* employée dans l'inventaire⁴³ des manuscrits de l'abbaye chartraine semble recouvrir un ouvrage de haute antiquité, en écriture insulaire, probablement issu de Bretagne continentale. Ascelin

36. Signalé par HANDSHIN 1950, p. 93; BENOIT-CASTELLI & HUGLO 1954, p. 178, n° 1; *Graduel* 1957, p. 93; HUGLO 1963, p. 28; GAMBER 1968, n° 1304d; JEFFERY 1983, p. 320.

37. BANNISTER 1913, p. 107, n° 289; HUGLO 1963, p. 28.

38. HUGLO 1963, p. 28.

39. MERLET 1885, p. 142-143.

40. DEUFFIC 2004.

41. Chartres, BM, 1526.

42. MERLET 1885, p. 116-117.

43. Édition dans MERLET 1854, p. 266, n° 55 : *De partibus orationis tractatus, scottisca littera* (réimpr. dans Becker, *Catalogi bibliothecarum antiqui*, Bonn, 1885, n° 59; cf. éd. dans *Catalogue général XI*, p. xxi-xxiv).

le Breton, disciple de Fulbert de Chartres (ca 960-1028), *sacerdos egregius*, fit don à la cathédrale de plusieurs livres précieux (*librorum bonam copiam*)⁴⁴. Enfin, un recueil (début XI^e siècle?) comprenant une version de l'*Historia Brittonum*, des extraits d'Isidore de Séville et un commentaire de Raban Maur, conservé par le chapitre et malheureusement détruit en 1944, procédait certainement d'un scriptorium (ou d'un exemplaire) breton⁴⁵.

Si la notation française était de mise à la cathédrale et à Saint-Père, la présence ponctuelle de neumes bretons sur certains ouvrages liturgiques concrétise l'existence effective de Bretons dans ces communautés. Au reste, Saint-Père se trouvait également en contact avec Fleury, comme le prouvent certains dons de manuscrits⁴⁶, les moines de Saint-Benoît ayant été à l'origine (ca 950) de la restauration du monastère chartrain après sa destruction par les Normands.

• Chartres, BM, 47⁴⁷

S. Gregorii Magni antiphonarium. Parchemin. 85 folios, 295 x 215 mm. X^e siècle. Reliure parchemin. Provenance : abbaye Saint-Père de Chartres dès le XI^e siècle. Manuscrit détruit en 1944.

• Chartres, BM, 110⁴⁸

Recueil patristique (Grégoire le Grand ; Sedulius). Parchemin. 220 folios, 240 x 170 mm. Provenance : Saint-Père de Chartres.

Quatre parties, la seconde, f^os 40-88, du X^e siècle. Au f^o 88, addition du XI^e siècle : hymne *A solis ortus cardine*, la première strophe notée en neumes bretons.

• Chartres, BM, 152⁴⁹

Saint Augustin, *De sancta Trinitate*. Copiste : *Amalbertus*. Parchemin. 176 folios, 335 x 245 mm. IX^e siècle (seconde moitié). Origine : Saint-Germain-des-Prés, selon Bischoff.

Quelques antennes de l'office de la sainte Trinité, ajoutées dans la première moitié du XI^e siècle (elles précèdent l'épitaphe de l'abbé Landri, mort vers 1069), ont reçu des neumes bretons, mélangés à des neumes français.

• Chartres, Archives départementales d'Eure-et-Loir⁵⁰

Fragment de missel. Introït du 24 juin. Notation neumatique bretonne ajoutée. Parchemin. XII^e siècle.

44. MERLET & CLERVAL 1893, p. 158.

45. Chartres, BM, 98. *Catalogue général XI*, p. 51 ; FLEURIOT 1980, p. 247-248 (ca 900) ; DUMVILLE 1994, p. 415, n. 66 (daté par B. Bischoff de la première moitié du XI^e siècle).

46. Chartres, BM, 40 (manuscrit détruit en 1944). *Exposition super Job*, composé en *scriptura romana* (onciale). Au f^o 58, ex-libris de Fleury : *hic est liber sancti Benedicti abbati Floriacensi* ; au f^o 1, du XVII^e siècle : *Ex-libris monasterii S. Petri Carnotensis... Ce livre a été apporté de Saint-Benoist sur Loire et apparemment des le temps que Ragenfredus remit ici les moynes*. MERLET 1854, p. 266-267, n° 26.

47. *Paléographie musicale XI* ; BENOIT-CASTELLI & HUGLO 1954, p. 173-178 ; *Paléographie musicale XVII* ; HUGLO 1963, p. 26-27 ; SCHLAGER 1965, p. 257 ; HUGLO 1971, p. 105, 108, 401 et 472 ; PLANCHART 1977, II, p. 344 ; CROCKER 1977, p. 465 ; WIESLI 1966 ; HILEY 1992 ; DOWNEY 1994 ; POUDEROIJEN 1995 ; DOWNEY 1998 ; DOWNEY & FLEMING 2005, p. 68.

48. *Catalogue général XI*, p. 59-60 ; *Paléographie musicale XVII*, p. 24 ; HUGLO 1963, p. 30 ; SPRINGER 1995, p. 209.

49. *Catalogue général XI*, p. 80 ; LANGLOIS 1911, p. 161 ; *Paléographie musicale XVII*, p. 25-26 ; HUGLO 1963, p. 30 ; MOSTERT 1989, p. 85 ; BISCHOFF 1998, p. 195, n° 897.

50. *Paléographie musicale XVII*, p. 33 ; HUGLO 1963, p. 30.

ANJOU

De par tradition, l'Anjou demeura terre d'accueil des Bretons à partir du IX^e siècle. En 863, à l'entrevue d'Entrammes, Salomon, *dux Brittonum*, reçut de Charles le Chauve le territoire d'entre Sarthe et Mayenne (*inter duas aquas*) et l'abbaye de Saint-Aubin d'Angers. Saint-Serge conservait les reliques de *Brioc*, fondateur de l'évêché qui devint Saint-Brieuc. Outre le graduel déjà mentionné (Angers, BM 91), la notation bretonne se rencontre à Saint-Nicolas d'Angers, établissement possessionné dans le Nantais.

• Angers, BM 811⁵¹

Saint Grégoire, *Dialogues*. Parchemin. 115 folios, 276 x 178 mm.

Le répons *Congregati sunt* avec neumes bretons et l'antienne *Ascendit Christus* ont été ajoutés par deux mains différentes.

ORLÉANAIS

Les scriptoria d'Orléans, Saint-Benoît-sur-Loire (Fleury) ou Saint-Mesmin de Micy utilisaient la notation française. La rencontre ponctuelle de neumes bretons s'explique par les liens très étroits entretenus par ces établissements avec la Bretagne depuis le début du X^e siècle au moins⁵², lorsqu'Alain Barbetorte confia à l'abbé de Fleury, Archambaud, son fils naturel Guéric, né outre-Manche, son père étant alors en exil auprès d'Aethelstan. Agan, prélat de Dol, et son clergé, de retour de leur exil en *Parisis*, reçurent en mai 930 d'Hugues le Grand l'abbaye de Saint-Symphorien d'Orléans.

• Berne, Bürgerbibliothek, 219⁵³

Un des plus anciens témoins de la tradition manuscrite de la *Chronique de saint Jérôme*, le *Bernensis 219*, en onciale du VII^e siècle, porte l'ex-libris de Fleury (XI^e siècle) : *Hic est liber sancti Benedicti abbatis Floriacensis cenobii*. Parchemin. 77 folios, 305 x 226/232 (265/278 x 190-195) mm.

Les répons *Beatus Laure[n]tius dixit ego me obtuli sacrificium Deo in odorem suavitatis et Cristo Iesu filius*, au f° 77, ont été ajoutés avec des neumes bretons « très frustes et peu soignés ».

• Paris, BnF, Lat. 5082 (+ Nlle Acq. Lat. 1630, f° 17-18)⁵⁴

Historia ecclesiastica tripartita de Cassiodore. Parchemin. 142 folios, 291 x 145 mm. f° 8-134, IX^e siècle; f° 1-7, 135-142 refaits au XII^e siècle.

NOMBREUSES notes marginales et essais de plume, certaines enfantines, qui pourrait laisser penser que nous sommes en présence d'un manuscrit d'école monastique. Provenance: Fleury. Origine: Fleury, Saint-Mesmin, etc.? Au f° 63, en add. *Alleluia amavit eum* avec neumes bretons.

51. *Catalogue général XXXI*, p. 456-457; VEZIN 1974, p. 159; HUGLO 1963, p. 31.

52. GOUGAUD 1923; BERLAND 1984; RICHÉ 2004; DEUFFIC 2008. Plusieurs manuscrits provenant de Fleury ont une origine bretonne: Berne, Burgerbibliothek, ms. 85 (*Evangelia*, IX^e siècle), ms. 160 (*Orose, Historia adversus paganos*, X^e siècle), ms. 167 (*Virgile*, IX^e siècle), ms. 179 (*Priscien*, IX^e siècle), etc.

53. HAGEN 1875, p. 269; LOWE 1956, p. 7, n° 860; HOMBURGER 1962, p. 16-21, pl. I et LXI; DI MARIA 1990; HUGLO 1963, p. 30 et pl. XXVI (f° 77); MOSTERT 1989, p. 64, BF 117; BISHOFF 1998, p. 117, n° 553a. Sur la tradition manuscrite, voir LAMBERT 1969; MOSSHAMER 1975.

54. *Catalogue général XII*, p. 165; PELLEGRIN 1988, p. 170-178.

- Vatican, BAV, Reg. Lat. 523⁵⁵

Passionnaire. Parchemin. 245 folios, 292 × 205 mm sur 30 lignes.

La présence de l'*Epitaphium Hugonis Magni* († 1026), *Roberti regis filii quod fecit Giraldus Aurelianensis* – Gerald, moine de Fleury – donne à penser que ce manuscrit, s'il n'est pas du monastère ligérien, doit être très certainement orléanais. Quelques antennes à la Vierge (f° 55^v) sont en notation bretonne.

TOURS

Les relations entre la métropole tourangelle et la Bretagne furent non seulement diplomatiques mais également culturelles. Au reste, le tombeau de saint Martin attirait nombre de pèlerins et la *vita* du bienheureux devint un lieu commun de l'hagiographie bretonne carolingienne. Le plus ancien évangéliaire breton connu (Paris, BnF, Nlle Acq. Lat. 1587, extrême fin du VIII^e/début du IX^e siècle) porte la marque de Saint-Gatien de Tours⁵⁶. Un autre manuscrit des évangiles (London, British Library, Egerton 609, début du IX^e siècle) vient de la collégiale Saint-Martin (*Iste Liber est de Ecclesia beatissimi Martini Turonensis*, f° 102^v, XV^e siècle)⁵⁷. L'abbaye de Marmoutier, possessionnée en Bretagne, conservait les reliques de Corentin; Saint-Julien, celles de saint Léri et le corps de Blenliuuet, évêque de Vannes (ca 950), mort en odeur de sainteté⁵⁸. Tours usa – comme l'ensemble des scriptoria ligériens – de la notation française. Des neumes bretons se rencontrent accidentellement.

- Paris, BnF, Lat. 8883⁵⁹

Lectionarium Turonense. Provenance: Saint-Gatien. Parchemin. 80 folios, 365 × 155 (300 × 95) mm. Début du XI^e siècle.

L'office de la sainte Trinité, noté avec neumes bretons au f° 54^v, a été complété à la fin en notation française.

ANGLETERRE

Les excursions des « hommes du Nord » provoquant l'exode des élites bretonnes, un groupe important trouva refuge à la cour des rois Édouard l'Ancien († 924) et Aethelstan († 939). Mathuedoi, comte de Poher, fit le choix d'une retraite insulaire. Leur retour en Bretagne se produisit vers l'année 936, *dixit* Flodoard. Ce séjour de quelques décennies eut des incidences culturelles, concrétisées par la présence outre-Manche de manuscrits d'origine bretonne continentale et par le (re)déploiement du culte des saints bretons à partir de leurs reliques⁶⁰.

55. DELISLE 1897, p. 298; PONCELET 1910, p. 350-352; BANNISTER 1913, p. 107, n° 288, pl. 60 (f° 55^v); HUGLO 1963, p. 30 et pl. XV (f° 55^v); SALMON 1968, IV, n° 114; VIDIER 1965, p. 63.

56. Pour l'édition, HEER 1910; LOWE 1956, V, n° 684; ALEXANDER 1978, n° 56.

57. WORMALD 1977, p. 14, n. 6, p. 19; MARSDEN 1999, p. 290-291 et 303.

58. SALMON 1854.

59. RAND 1929, p. 196, n° 200; HUGLO 1963, p. 31 et pl. II (f° 54^v); *Catalogue général des manuscrits latins* n° 8823-8921, p. 99-101, pl. XXII (f° 20).

60. LOOMIS 1950; KEYNES 1985; DUMVILLE 1993, p. 1-13; DUMVILLE 1994, p. 110 *sq.*; DEUFFIC 2008, p. 119-122.

Dans ce contexte, d'autres jonctions se sont opérées autour des communautés monastiques pour quitter la Bretagne vers des contrées plus paisibles. La douzaine de moines de Landévennec, avec à leur tête l'abbé Clément, des laïcs ont pris le chemin de la Belgique, là où ils savaient que jadis d'autres Bretons s'étaient établis. Helgaud II (877- 926) les accueillit avec générosité à Saint-Saulve de Montreuil⁶¹, où une partie du corps saint du fondateur breton Guénolé (*Uuinuualoei*) fut déposé. Il n'est pas exclu qu'ultérieurement un certain nombre traversa la Manche, d'autant qu'à la suite du départ d'Helgaud, chassé par Arnoul de Flandre, Aethelstan reçut la femme et les enfants d'Herluin († 945), fils du comte de Montreuil et abbé de Saint-Riquier, monastère où reposaient aussi des reliques de saint Guénolé. Apparemment, vers l'an mil, les Bretons ont tous – ou presque – quitté cette région du nord de la *Francia*, en « abandonnant » reliques et manuscrits (Boulogne, BM ms. 8, Évangiles, ix^e siècle; Saint-Omer, BM ms. 666, Poème à caractère hispérique, ix^e siècle, provenance: Saint-Bertin; Valenciennes, BM, ms. 407; Douai, BM, ms. 13, Évangiles, ix^e siècle, provenance: abbaye de Marchiennes; Tongres, Collégiale de la Nativité, Évangiles de Saint-Bern, ix^e siècle; Paris, BnF, Lat. 12021, *Collatio Canonum*, ix^e siècle, provenance: Corbie, etc.).

Des manuscrits mettent en connexion Dunstan (ca 908-988), l'archevêque de Canterbury, et les Bretons: Oxford, Bodleian Library, Hatton 42; Oxford, Bodleian Library, Auct. F.4.32, f^{os} 1-9; Paris, BnF, Lat. 943. Ici encore la question se pose sur la façon dont certains de ces manuscrits sont arrivés en Angleterre. Plusieurs études, dont celle de Steven Vanderputten⁶², ont montré que les relations anglo-flamandes (Gand, Saint-Bertin, etc.) avaient engendré des liens culturels évidents du temps de Dunstan, et de ce fait des manuscrits ont pu faire l'objet de transactions (exil de Dunstan au Mont-Blandin de Gand), à l'époque où des Bretons étaient peut-être encore présents dans le nord de la *Francia*. Fleury, foyer culturel, représentait à cette époque un centre d'échanges important dans une triangulaire avec la Bretagne et le sud de l'Angleterre lorsque l'abbé Abbon séjourna outre-Manche, à Ramsey, l'abbaye ligérienne recevant quant à elle une *legatio gentis Anglorum* vers 985⁶³.

Les sources manuscrites⁶⁴ ne nous apprennent pratiquement rien sur la première partie de la biographie de Leofric († 1072), un clerc cornouaillais ou gallois (*Brytonicus*) nommé évêque de Crediton le 19 avril 1046. Son éducation en *Lotharingia*, évoquée par le chroniqueur Guillaume de Malmesbury qui écrivait au XII^e siècle, s'est peut-être déroulée à Toul où Bruno – le futur pape Léon IX – exerçait comme chanoine de Saint-Étienne, entre 1017 et 1024, ou plus probablement à Liège. Leofric intégra la cour du roi Edward alors en exil sur le continent, qui, de retour en Angleterre, lui accorda en 1044 la terre de Dawlish dans le Devon. Le docte prélat fit du monastère de Saint-Pierre d'Exeter sa nouvelle cathédrale où il fut intronisé évêque en 1050, remplaçant la communauté de moines par un chapitre de chanoines vivant sous la règle de Chrodogang⁶⁵. Des 64 livres manuscrits qu'il légua à Exeter, une grande partie a été acquise auprès d'établissements anglais (Christ Church, Saint-Augustin de Canterbury, Glastonbury, etc.). Pour certains qui n'ont pas une origine insulaire se pose la question de savoir s'ils n'étaient pas déjà outre-Manche avant Leofric, c'est-à-dire peut-être du temps où régnait Aethelstan († 939). Ainsi en est-il de l'évangéliaire breton Oxford, Bodleian Library, Auct. D.2.16 (Landévennec,

61. LE BOURDELLÈS 1995.

62. VANDERPUTTEN 2006.

63. MOSTERT 1986.

64. CONNER 1993; CORRADINI 2005.

65. BLAKE 1982.

IX^e siècle), où deux miniatures « flamandes » ont été ajoutées au XI^e siècle, manuscrit qui a servi de modèle pour l'exécution d'un autre évangéliaire d'Exeter (Paris, BnF, Lat. 14782)⁶⁶ et de manuscrits français ou ligériens (Oxford, Bodleian Library, Bodl. 394, Isidore, début du X^e siècle, et Oxford, Bodleian Library, Bodl. 849, Bède, début du IX^e siècle)⁶⁷. Dans le cas où Leofric aurait acquis ces manuscrits sur le continent, l'idée séduisante serait de les attribuer à une abbaye du nord de la *Francia* « peuplée » de quelques moines bretons ou conservant des manuscrits originaires de Bretagne (Saint-Saulve de Montreuil, Saint-Bertin, Saint-Riquier, Corbie, etc.). Enfin, soulignons que sur les sept codex présentés ci-dessous, trois se rapportent directement à saint Cuthbert dont le nom fut glorifié par l'abbaye cornouaillaise Saint-Guénolé de Landévennec⁶⁸.

• Cambridge, Corpus Christi College, ms. 146⁶⁹

Pontifical de Samson, abbé de Winchester (1096-1112). Parchemin. 310 × 190 mm. 31 folios + 129 + 7, f° 27.

Origine: Winchester? (Hartzell), Canterbury? (Dumville). Début du XI^e/début du XII^e siècle. Les neumes bretons sont probablement ajoutés, selon Susan Rankin.

• Cambridge, University Library, Kk.i. 4 (+ London, British Library, Cotton Tiberius B V (f° 76) + London, BL, Sloane 1044 (f° 2)⁷⁰

Évangiles. VIII^e siècle (*Northumbria*, ou Irlande). La notation bretonne n'appartient pas à la première phase du manuscrit, mais a été exécutée avant que manuscrit ne parvienne à Ely.

• London, BL, Cotton Vitellius A.XIX⁷¹

Bède, *Vita Cuthberti*. Origine: Canterbury? (Christ Church, Saint-Augustin?), ca 950.

Aux f° 88^r et 89^r des neumes bretons sont mélangés à des neumes anglo-saxons (seconde moitié du X^e siècle).

• London, BL, Harleian 1117⁷²

Bède, *vita* en prose de saint Cuthbert⁷³ (f° 2-42^v); *vita* versifiée (f° 45-62^v); offices notés des saints Cuthbert, Benoît et Guthlac (f° 43-44; f° 63-66).

Parchemin. 66 folios, 255 × 175 (200 × 125). Fin du X^e siècle ou début du XI^e siècle. Inscription au f° 62^v: *Iusserat aeclesiae uuigbeorhtus scribere nabla hoc// abbas huius;*

66. ALEXANDER 1966.

67. N° 51 de la liste de manuscrits offerts par Leofric à Exeter. PÄCHT & ALEXANDER 1966, I, p. 32, n° 413 et pl. XXXIV.

68. DEUFFIC 1985-2, p. 27.

69. JAMES 1909, I, p. 332-335; BRÜCKMANN 1973, p. 405-406; RANKIN 1987, p. 143, n° 20, pl. XX, f° 18; DUMVILLE 1992, p. 72-73; BUNDY 1997, I, p. 495-499; SOLE 1998, p. 132; GNEUSS 2001, n° 46; HARTZELL 1989, p. 84. Manuscrit numérisé sur le site de la Parker Library <http://parkerweb.stanford.edu/parker/actions/page.do?forward=page_turner&cms_no=146>.

70. LOWE 1956, II, n° 138; McGURK 1961, n° 30; SOLE 1998, p. 133; BROWN 2003, p. 174.

71. KER 1957, p. 283; BISHOP 1959; LAPIDGE 1995, p. 143; SOLE 1998, p. 133; O'BRIEN O'KEEFFE 2003, p. 7-12.

72. *Harleian 1808*, I, n° 1117; COLGRAVE 1956, p. 10; KER 1957, n° 234; BISHOP 1959, p. 413-423; HUGLO 1963, p. 32; TEMPLE 1976, n° 30 (vii); *Benedictines* 1980, n° 27; RANKIN 1987, p. 142, n° 7; HILEY 1993, p. 405-407, pl. I (f° 44^r); SOLE 1998, p. 120-123, et, pour la notation, p. 128-137; GNEUSS 2001, n° 427; HARTZELL 2006, n° 157.

73. Sur le dossier liturgique de saint Cuthbert, voir LENZ 2009 (en ligne à l'adresse <<http://www.mun.ca/mst/heroicage/index.php>>).

cunctos rogitat qui hic psallere captant, // utque sui memores cantus cumulamine constent, // quo Deus omnipotens sibi crimina cuncta relaxet⁷⁴.

Cet ouvrage n'étant pas un psautier, la mention a probablement été copiée d'après un manuscrit plus ancien. La notation bretonne, très pure, comprend de nombreuses lettres significatives (*l, m, q, s, sol*). La décoration et l'écriture ramènent également ce manuscrit à l'abbaye de Christ Church de Canterbury; ouvrage passé ensuite à Sherborne (Wessex).

• Oxford, Bodleian Library, Bodl. 579⁷⁵

Missel de Leofric. L'histoire de ce manuscrit reste complexe. La base du livre, que les érudits modernes désignent par « Leofric A », est une production d'un scriptorium probablement cambraisien (Saint-Vaast d'Arras?) de l'extrême fin du IX^e siècle. Par la suite, le « missel » a été importé en Angleterre, à Canterbury, où de nombreux ajouts, dont un bref recueil de matériaux de comput et un calendrier, ont été insérés entre 925 et 1030. Ces additions sont maintenant désignées par « Leofric B ». Le manuscrit a ensuite été donné par l'évêque Leofric (1050-1072) à la cathédrale d'Exeter – *hunc missalem Leofricus episcopus dat ecclesie sancti Petri apostoli in Exonia* (f^o 1^r) – où des insertions supplémentaires ont été faites sur une période allant probablement jusqu'au début du XII^e siècle. Cette partie de l'ouvrage est connue à présent sous la dénomination de « Leofric C ». L'édition ultime de Nicholas Orchard différencie les trois « strates » par des polices différentes. Ce sacramentaire utilise des neumes messins sur les *incipit* des chants ajoutés en marge. Pourtant, au f^o 59^v, la préface commune (copiste « i » d'Orchard) – *[V]ERE DIGNVM et iustum est...* – a reçu des neumes bretons. De même, au f^o 65^r, on trouve des neumes bretons probablement ajoutés lorsque le manuscrit se trouvait en Angleterre.

• Paris, BnF, Lat. 943⁷⁶

Pontifical de Sherborne, dit *de saint Dunstan*⁷⁷, « copié et illustré entre 960, date de la bulle de Jean XII en faveur de saint Dunstan (f^{os} 7 et 8), et 998, époque à laquelle a été écrite la lettre adressée à Wulfsin (f^{os} 2 et 3), lettre qui est d'une autre écriture que le reste du manuscrit et qui a été ajoutée ». Parchemin. 170 folios, 315 × 205 mm. Provenance incertaine (Chelles? Argenteuil?...).

Cet ouvrage contient aux f^{os} 154^v-155 le catalogue d'une bibliothèque monastique (XI^e siècle) d'un établissement de moniales dédié à Note-Dame, rédigé par un certain Dodo, document récemment étudié par Anne-Marie Turcan-Verkerk. L'écriture et la décoration rattachent le manuscrit à Christ Church de Canterbury. Son passage sur le continent et son utilisation découlent de plusieurs additions (bénédicitions) opérées

74. Même inscription dans le manuscrit London, BL, Harleian 526, contenant une *vita Cuthberti*.

75. *Leofric Missal* 1883; STAINER 1913, p. LVI-LIX et pl. XXIX; HUGLO 1963, p. 33; DESHMAN 1977; RANKIN 1987, p. 142, n° 6; SOLE 1998; GNEUSS 2001, n° 585; ORCHARD 2001; BISCHOFF 2004, p. 361, n° 3788. Manuscrit numérisé sur le site de la Bodleian Library <<http://image.ox.ac.uk/show?collection=bodleian&mscript=msbodl579>>. Sur le scriptorium et les manuscrits d'Exeter sous l'épiscopat de Leofric, voir FÖRSTER 1933; BISHOP 1954; DRAGE 1978; LAPIDGE 1985, n° X; GAMESON 1996; LAPIDGE 2006, p. 56-57 et 139-140; GAMESON 1999.

76. DELISLE 1881, p. 268-270; LEROQUAIS 1937, II, pl. VII-X; Catalogue Lauer, p. 335-336; RICE 1952, pl. 42d (antienne Zachee); Catalogue 1962, pl. VIII; HUGLO 1963, p. 32; AVRIL & STIRNEMANN 1987, p. 13-14 et pl. IV (n° 16, f° 4^r); RANKIN 1987, p. 141, n° 5, pl. XVI (f° 10^r); LAPIDGE 1991, p. 143-163; DUMVILLE 1992, p. 82-84; SOLE 1998, p. 134-135; RASMUSSEN & HAVERALS 1998, p. 258-317; TURCAN-VERKERK 2007, pl. 39-41.

77. Birgit Ebersberger prépare une édition du *Pontifical de saint Dunstan* dans le cadre des publications de la Henry Bradshaw Society.

par des mains françaises, comme au f° 162^v, en l'honneur des saints Marcel et Éloi. Le copiste qui a noté en neumes bretons (xi^e siècle) est peut-être celui qui a ajouté au f° 170^v l'Alleluia *Sacer Christi miles*. Cette notation est-elle antérieure au passage du manuscrit sur le continent ou avait-elle été ajoutée à Sherborne?

- Vatican, BAV, Reg. Lat. 204⁷⁸

Parchemin. 24 folios, 205 × 146 mm. 23/26 lignes. xi^e siècle. Origine : Saint-Augustin de Canterbury.

Au f° 24^v, d'une écriture du XIII^e siècle : *Hic liber est sanctorum Florentini et Hilarii martyrum Bonevall[ensium]* (abbaye bénédictine de Bonneval, diocèse de Chartres). Contient l'office de saint Cuthbert.

PAVIE

Une tradition ancienne dont fait écho l'historien breton Pierre Le Baud (xv^e siècle) nous apprend que « Daniel Drem Rud (comte de Cornouaille) se fist roi des Allemans (*sic*)⁷⁹ et espousa à Pavie la fille de l'empereur des Romains... eut en dot Tuscanne et Lombardie et fut en son temps le plus superbe et le plus puissant des rois d'Occident⁸⁰. » En Italie du Nord, point de rencontre d'influences diverses, les Bretons ne furent pas en reste pour pratiquer la *via Francigena*. Ainsi, l'abbaye Saint-Pierre-au-Ciel-d'Or, où reposait saint Augustin, était bien connue des moines de Saint-Sauveur de Redon.

Le graduol d'Ivrée (ms. 91) reste un témoin essentiel pour étudier la diffusion de la notation bretonne dans cette région. Le modèle fut-il breton? Le copiste était probablement italien : allure plus fine de la notation, présence de neumes locaux. Remarque importante : l'emploi de pièces rares, comme la prosule *Invocavi te* que l'on retrouve dans les manuscrits bretons, au missel de Saint-Vougay, par exemple. Si cette notation ne se démarque pas de la notation bretonne, elle a subi néanmoins un « remodelage » *in situ*. Des recherches récentes ont encore dévoilé l'existence de plusieurs témoins précieux – essentiellement des fragments – de la notation « brito-pavesane », tant en France qu'en Italie⁸¹.

- Ivrea, Biblioteca capitolare, ms. 91 (LX)⁸²

Parchemin. 157 folios, 320 × 255 mm. xi^e siècle.

Au f° 123^v: *Warmundum nostrum praesulum dirigat ad regna...* Malgré cette note explicite, le manuscrit doit être rattaché à Pavie, à cause de l'office très développé des saints Étienne et Syrus.

- Pavie, Seminario. Fragments de missel ; Archivio notarile. Fragments⁸³.

78. BANNISTER 1913, p. 108-109, n° 291, pl. 62a; WILMART 1945, I, p. 482-483; HUGLO 1963, p. 32 et pl. XIV (f° 1^v); RANKIN 1987, p. 142, n° 8; SOLE 1998, p. 1-22 et 104-144.

79. Les *Allamani* – premiers colons des hautes Alpes – et les Francs pénétrèrent en Italie vers 540.

80. LE BAUD 1638, p. 91.

81. Voir les fragments des Archives d'État de Pavie cités dans l'excellente étude d'ALBIERO 2009. Un autre fragment (xi^e siècle) a été retrouvé récemment par Arnaud Delerce dans la reliure d'un registre de baptêmes de La Forclaz, en Savoie (archives de la paroisse Saint-Guérin-en-Vallée-d'Aulps). L'origine de ce fragment n'a pu être déterminée. Je remercie Dominique Gatté de m'avoir communiqué ces dernières informations.

82. HUGLO 1963, p. 33-34; PROFESSIONE 1967, p. 71, pl. III (f° 84^v); DOWNEY 1994; DOWNEY 1998.

83. COLOMBO 1947, p. 29, pl. I/1, p. 31, pl. I/2, II, III/4; HUGLO 1963, p. 34.

- Milan, Biblioteca Ambrosiana, L 77 sup⁸⁴
Missel. Parchemin. 172 folios, 260 × 190 mm. ix^e/x^e siècle.
Le fragment de garde contient l'office de saint Syrus et une antienne à saint Yventius, évêque de Pavie. Notation semblable à celle des manuscrits précédents.
- Vatican, BAV, Vat. Lat. 4197 + Vat. Lat. 4201⁸⁵
Parchemin. 252 × 165 mm. 21 lignes. Fin du xi^e siècle.
Feuilles de garde d'un gradué du xii^e siècle. Compte tenu des variantes mélodiques du *Pange lingua*, on peut penser à une même origine que le codex Ivrea 91.

NOTATIONS DE TRANSITION

Michel Huglo a montré que cette dénomination de « notation de transition » désignait l'utilisation conjointe de neumes français (ou aquitains) et bretons dans des régions en contact avec la Bretagne: Normandie, Maine et Aquitaine (notamment Saint-Martial de Limoges)⁸⁶. Elle découle probablement de la présence sur ces terres de manuscrits bretons notés⁸⁷.

En conclusion, au vu de la répartition géographique et de la densité des manuscrits en notation bretonne, il apparaît clairement que la Bretagne armoricaine reste bien le domaine propre de cette notation, Pavie formant un « noyau sans influence » et excentré. Apparue probablement vers la fin du ix^e siècle, elle s'est développée au siècle suivant lorsque la Bretagne connaissait de conséquentes transformations, intégrant l'apport culturel carolingien et délaissant peu à peu ses particularités primitives insulaires. La notation de Pavie découle probablement de la présence de livres liturgiques notés bretons en Italie. L'abbaye de Landévennec entretint avec Arezzo des contacts concrétisés par l'envoi à l'évêque Jean d'une *vita* et des reliques du saint fondateur Guénolé, à la fin du ix^e siècle. Un évangéliaire breton (cornouaillais) du xii^e siècle, conservé à Pise dès le xiv^e siècle, semble-t-il, porte les noms des saints bretons Corentin, Guénolé, Samson et Brieuc, ce dernier sous une forme archaïque, *Briomaglos*⁸⁸. Ces exemples montrent que la notation brito-pavesane prit certainement source en Bretagne même.

84. HUGLO 1963, p. 34; GENGARO & VILLA GUGLIELMETTI 1968, p. 83.

85. BANNISTER 1913, p. 52, n° 171, pl. 24b (f° 85^r du ms. 4197); HUGLO 1963, p. 34.

86. Le tombeau de saint Martial attirait nombre de pèlerins. Un nécrologue de Saint-Martial mentionne la confraternité qui fut accordée au milieu du xi^e siècle à un groupe de nobles d'Italie méridionale, parmi lesquels des Bretons installés en Calabre et en Sicile au lendemain de la « conquête » normande. Le monastère aquitain cultivait le nom de saint Gildas. Un recueil composite (Paris, BnF, Lat. 1154, f° 9^v-10^r, x^e siècle, avec additions du xi^e siècle), originaire d'un monastère dédié à saint Martin, puis adapté à l'usage de Saint-Martial, comporte une liste imposante d'hagionymes bretons – certains connus par ce seul témoin – insérée dans des litanies de plus d'un millier de noms, parmi lesquels on peut lire celui de Gildas entre ceux des saints *Petran* et *Salmon*. Voir notre étude (à venir), « Le culte liturgique de saint Gildas de Rhuys jusqu'à la fin du Moyen Âge », dans les *Actes du Colloque de Saint-Gildas de Rhuys*. Enfin, comme témoignage de la « circulation » de la notation bretonne à Saint-Martial, citons le fragment d'antiphonaire du xi^e siècle incorporé au manuscrit Paris, BnF, Lat. 656, incluant un office diurne et nocturne de saint Denis avec neumes bretons. Danièle Gaborit-Chopin a montré que la décoration de cet ouvrage n'offrait « aucune caractéristique du style limousin », et de ce fait, même s'il fut anciennement à Saint-Martial, il n'en semble pas origininaire. *Catalogue général des manuscrits latins*, I (Paris: Bibliothèque nationale, 1939), p. 232. *Gilbertus Elnonensis, Glossa in Epistolas Pauli*, xii^e/xiii^e siècle, « Saint-Martial 30 », 305 × 195 mm, 78 folios, 2 col. GABORIT-CHOPIN 1969, p. 145, n. 18. Sur la notation bretonne à Saint-Martial, voir HUGLO 1963, p. 41-42.

87. Pour les témoins manuscrits de cette notation de transition, voir HUGLO 1963, p. 35-43.

88. Vatican, BAV, Vat. Lat. 6083. Cet évangéliaire vient peut-être de Landévennec. SALMON 1968, II, p. 66-67, n° 140.

| | | | | | |
|-----------|----------|---------|---------|----------|-----------|
| .. | —'—' | —'—' | —~ | — | —~ |
| punctum | virga | podatus | clivis | torculus | porrectus |
| —'—' | —'—' | —'—' | — | — | — |
| scandicus | climacus | axe | pressus | oriscus | |

Tableau des neumes bretons du manuscrit Paris, Bibliothèque Sainte-Geneviève, 223⁸⁹.QUELQUES CARACTÉRISTIQUES DES NEUMES BRETONS⁹⁰

La notation bretonne, de par sa morphologie générale, plutôt archaïque, se rapproche fortement de la notation paléofranque : alternance de traits et de points, neumes à angle droit, petits arcs de cercle, même inclinaison du *scandicus*, verticalité du *climacus*. La différence apparaît au niveau de la signification des signes identiques. Graphiquement, on constate l'utilisation d'une encre très noire – et non sépia comme sur les manuscrits continentaux – dans certains tracés de cette notation, sans doute la réminiscence d'une pratique insulaire.

- *punctum*: un point, un trait plus ou moins long, un tiret encadré de deux épisèmes.
- *podatus*: toujours très ouvert, parfois avec ergot vertical ou horizontal; parfois désagrégé en trait + *virga*, point + *virga*; epsilon renversé + *virga*.
- *clivis*: angle aigu, le second élément descend plus ou moins suivant l'intervalle mélodique. Forme désagrégée: trait au-dessus d'un point, deux points ou deux traits superposés.
- *torculus*: variété d'inclinaison, souvent petit trait plus ou moins incliné, prolongé par un arc de cercle. Forme particulière dans les manuscrits pavesans: troisième branche doublée d'un trait parallèle partant du milieu de la seconde branche.
- *scandicus*: incliné de gauche à droite.
- *climacus*: traits et points, ou traits effilés, verticaux.
- deux signes spéciaux pour le *quilisma* et le *pressus*.

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BIBLIOGRAPHIE

ALBIERO 2009 : Albiero Laura, « I canti della messa nei frammenti dell'Archivio di Stato di Pavia. Canto, memoria, scrittura », *Rivista internazionale di musica sacra*, XXX (2009), p. 67-95.

ALEXANDER 1966 : Alexander Jonathan J. G., « A Little-known Gospel Book of the Later Eleventh Century From Exeter », *The Burlington Magazine*, CVIII (1966), p. 6-16.

ALEXANDER 1978 : Alexander Jonathan J. G., *Insular Manuscripts, 6th to the 9th Century*, Londres, H. Miller, 1978.

89. D'après BERNARD 1965, p. 145.

90. HUGLO 1963, p. 15. Pour les relations avec la notation paléofranque, voir par exemple LEVY 1987.

ALEXANDER, MARROW & SANDLER 2005 : Alexander Jonathan J. G., Marrow James H. & Sandler Lucy Freeman, *The Splendor of the Word: Medieval and Renaissance Manuscripts at the New York Public Library*, London, Harvey Miller Publishers, 2005.

Archéologie 1990 : *Archéologie du livre médiéval, Abbaye de Daoulas, 1^{er} décembre 1990-31 janvier 1991*, Daoulas, Centre Culturel Abbaye de Daoulas & CNRS, 1990.

AVRIL 1964 : Avril François, « Note sur quelques manuscrits bénédictins normands du XI^e et XII^e siècle », *Mélanges d'archéologie et d'histoire*, LXXVI (1964), p. 491-525.

AVRIL 1965 : Avril François, « Note sur quelques manuscrits bénédictins normands du XI^e et XII^e siècle », *Mélanges d'archéologie et d'histoire*, LXXVII (1965), p. 209-248.

AVRIL & STIRNEMANN 1987 : Avril François & Stieremann Patricia, *Manuscrits enluminés d'origine insulaire, VII^e-XX^e siècle*, Paris, Bibliothèque nationale, 1987.

BANNISTER 1913 : Bannister Enrico Marriott, *Monumenti Vaticani di paleografia musicale latina raccolti ed illustrati*, Leipzig, Harrassowitz, 1913.

Benedictines 1980 : *The Benedictines in Britain*, British Library Series III, London, British Library, 1980.

BENOIT-CASTELLI & HUGLO 1954 : Benoit-Castelli Georges & Huglo Michel, « L'origine bretonne du graduel n° 47 de la bibliothèque de Chartres », *Études grégoriennes*, I (1954), p. 173-178.

BERLAND 1984 : Berland dom Jean-Marie, « L'influence de l'abbaye de Fleury en Bretagne et dans les îles britanniques du X^e au XII^e siècle », dans *Questions d'histoire de Bretagne. Actes du 10^e Congrès national des sociétés savantes, Brest, 1982, Philologie et histoire jusqu'à 1610*, Paris, 1984, p. 275-299.

BERNARD 1965 : Bernard Madeleine, *Répertoire des manuscrits médiévaux contenant des notations musicales*, I. *Bibliothèque Sainte-Geneviève - Paris*, Paris, CNRS, 1965.

BERNARD 1966 : Bernard Madeleine, *Répertoire des manuscrits médiévaux contenant des notations musicales*, II. *Bibliothèque Mazarine - Paris*, Paris, CNRS, 1966.

BEYERS 1995 : Beyers Rita, « La Conception Nostre Dame de Wace: premier poème narratif sur la Vierge en ancien français », dans Werner Verbeke éd., *Serta devota in memoriam Guillermo Lourdaux*, Louvain, Leuven University Press, 1995, p. 359-400.

BISHOFF 1998 : Bishoff Bernhard, *Katalog der festländischen Handschriften des neunten Jahrhunderts*, I, Wiesbaden, Harrassowitz, 1998.

BISHOFF 2004 : Bishoff Bernhard, *Katalog der festländischen Handschriften des neunten Jahrhunderts*, II, Wiesbaden, Harrassowitz, 2004.

BISHOP 1954 : Bishop Terence A. M., « Notes on Cambridge Manuscripts Part III: Manuscripts Concerned With Exeter », *Transactions of the Cambridge Bibliographical Society*, II (1954-1958), p. 192-199.

BISHOP 1959 : Bishop Terence A. M., « Notes on Cambridge Manuscripts. Part V: Manuscripts Connected with St Augustine's Canterbury », *Transactions of the Cambridge Bibliographical Society*, III (1959-1963), p. 93-95.

BLAKE 1982 : Blake David, « The Development of the Chapter of the Diocese of Exeter, 1050-1161 », *Journal of Medieval History*, VIII (1982), p. 1-11.

BORST 2004 : Borst Arno, *Der Streit um den karolingischen Kalender*, MGH Studien und Texte, 36, Hannover, Hahnsche Buchhandlung, 2004.

BROWN 2003 : Brown Michelle P., *The Lindisfarne Gospels: Society, Spirituality and the Scribe*, London, British Library, 2003.

BRÜCKMANN 1973 : Brückmann John, « Latin Manuscript Pontificals and Benedictionals in England and Wales », *Traditio*, XXIX (1973), p. 391-458.

BUNDY 1997 : Bundy Mildred, *Insular, Anglo-Saxon, and Early Anglo-Norman Manuscript Art at Corpus Christi College, Cambridge: An Illustrated Catalogue*, Kalamazoo, Western Michigan University Medieval Institute Publications, 1997.

Catalogue général XI: Auguste Molinier éd., *Catalogue général des manuscrits des bibliothèques publiques de France. Départements*, XI : Chartres, Paris, Plon, 1890.

Catalogue général XII: Charles Cuissard éd., *Catalogue général des manuscrits des bibliothèques publiques de France. Départements*, XII : Orléans, Paris, Plon, 1889

Catalogue général XXXI: Auguste Molinier éd., *Catalogue général des manuscrits des bibliothèques publiques de France, Départements*, XXXI, Paris, Plon-Nourrit, 1898.

Catalogue 1962 : *Catalogue des manuscrits en écriture latine portant des indications de date, de lieu ou de copiste*, II. *Bibliothèque nationale, fonds latin (n° 1 à 8000)*, Paris, CNRS, 1962.

Catalogue 1984 : *Catalogue des manuscrits en écriture latine portant des indications de date, de lieu ou de copiste*, VII. *Ouest de la France et pays de la Loire*, Paris, CNRS, 1984.

Catalogue Lauer: Philippe Lauer éd., *Catalogue général des manuscrits latins*, I: n° 1-1438, Paris, Bibliothèque nationale de France, 1939.

Catalogue Sclafer: Jacqueline Sclafer & Marie-Pierre Laffitte éd., *Catalogue général des manuscrits latins*, n° 8823-8921, Paris, Bibliothèque nationale de France, 1997.

CHALKER 1937 : Chalker Thos P., « Matthew 13:55-28:20 in Two Unpublished Vulgate Manuscripts », *Speculum*, XII (1937), p. 209-214.

COLGRAVE 1956 : Colgrave Bertram, *Felix's Life of Saint Cuthlac*, Cambridge, Cambridge University Press, 1956.

COLOMBO 1947 : Colombo Luisa, *I codici liturgici della diocesi di Pavia*, Fontes Ambrosiani, XXXIV, Milan, Biblioteca Ambrosiana, 1947.

CONNER 1993 : Conner Patrick W., *Anglo-Saxon Exeter: A Tenth-Century Cultural History*, Woodbridge, Boydell Press, 1993.

CORRADINI 2005 : Corradini Erika, « *Apud Lotharingos altus et doctus: Leofric of Exeter, 1050-1072* », dans *Proceedings of the Manchester Centre for Anglo-Saxon Studies Postgraduate Conference*, 1 (2005), p. 2-13.

CROCKER 1977 : Crocker Richard L., *The Early Medieval Sequence*, Berkeley, University of California Press, 1977.

CULLIN 1981 : Cullin Olivier, *Le chant grégorien, une tradition millénaire*, Catalogue de l'exposition réalisée dans le cadre de l'Année du Patrimoine, Chapelle de la Sorbonne, décembre 1980-janvier 1981.

DELISLE 1881 : Delisle Léopold, *Le Cabinet des manuscrits de la Bibliothèque nationale*, III, Paris, Imprimerie Nationale de France, 1881.

DELISLE 1886 : Delisle Léopold, *Mémoires sur d'anciens sacramentaires*, Paris, Imprimerie nationale de France, 1886.

DELISLE 1897 : Delisle Léopold, « Compte rendu de l'ouvrage de Hugo Ehrensberger, *Libri liturgici Bibliotcae Apostolicae Vaticanae manu scripti* », *Journal des savants* (mai 1897), p. 284-299.

DESHMAN 1977 : Deshman Robert E., « The Leofric Missal and Tenth-Century English Art », *Anglo-Saxon England*, VI (1977), p. 145-173.

DEUFFIC 1982 : Deuffic Jean-Luc, « Le Missel de Saint-Vougay (Archives départementales du Finistère 4J 96) », *Britannia Christiana*, II (1982), p. 19-70.

DEUFFIC 1985-1 : Deuffic Jean-Luc, « Les manuscrits de Landévennec », dans SIMON 1985, p. 266-268.

DEUFFIC 1985-2 : Deuffic Jean-Luc, *Calendrier à l'usage de l'abbaye de Landévennec*, Bibliothèque liturgique bretonne, V, Landévennec, Britannia Christiana, 1985.

DEUFFIC 1986 : Deuffic Jean-Luc, « La production manuscrite des scriptoria bretons (VIII^e-XI^e siècles) », dans *Landévennec et le monachisme breton dans le Haut Moyen-Âge. Colloque du 15^e Centenaire de la fondation de l'abbaye de Landévennec*, Landévennec, Association Landévennec, 1986.

DEUFFIC 2004 : Deuffic Jean-Luc, « Les anciens livres liturgiques de la cathédrale de Tréguier », *Pecia*, VI (2004), p. 139-141.

DEUFFIC 2006 : Deuffic Jean-Luc, « L'exode des corps saints hors de Bretagne: des reliques au culte liturgique », *Pecia*, VIII-XI (2006), p. 355-423.

DEUFFIC 2008 : Deuffic Jean-Luc, « Le monachisme breton continental: ses origines et son intégration au modèle carolingien », *Pecia*, XII (2008), p. 77-141.

DI MARIA 1990 : Di Maria Giorgio, « De altera Bernensis C 219, 1 sive de codicis Parisini latini 7709 priore parte », *Pan*, X (1990), p. 13-25.

DOWNEY 1994 : Downey Charles T, *Breton Notation in France and Northern Italy. A Comparative Study of Offertories in Chartres, Bibl. mun., 47 and Ivrea, Bibl. cap.*, LX, M.A. thesis, Catholic University of America, 1994.

DOWNEY 1998 : Downey Charles T, « The Breton Notation in Ivrea LX », *Studia musicologica*, XXXIX (1998), p. 187-193.

DOWNEY & FLEMING 2005 : Downey Charles T. & Fleming Keith A., « Some Multiple-Melody Communions with Texts from the Gospels », *Études grégoriennes*, XXXIII (2005), p. 5-74.

DRAGE 1978 : Drage Elaine M., *Bishop Leofric and Exeter Cathedral Chapter (1050-1072): A Reassessment of the Manuscript Evidence*, PhD, Oxford, 1978.

DUINE 1903 : Duine François, « Légende de Saint-Pol-de- Léon », *Revue de Bretagne*, XXX (1903), p. 135-143.

DUINE 1906 : Duine François, *Bréviaires et missels des églises et abbayes bretonnes de France antérieurs au XVII^e siècle*, Rennes, s.n., 1906.

DUINE 1922 : Duine François, *Inventaire liturgique de l'hagiographie bretonne*, Paris, Honoré Champion, 1922.

DUMVILLE 1992 : Dumville David N., *Liturgy and the Ecclesiastical History of Late Anglo-Saxon England*, Woodbridge, The Boydell Press, 1992.

DUMVILLE 1993 : Dumville David N., « The English Element in Tenth-Century Breton Book Production », dans *Britons and Anglo-Saxons in the Early Middle Ages*, Aldershot, Variorum, 1993, n° XIV, p. 1-13.

DUMVILLE 1994 : Dumville David N., « *Historia Brittonum*: An Insular History from the Carolingian Age », dans Anton Scharer & Georg Scheibelreiter éd., *Historiographie im frühen Mittelalter*, Vienne, Oldenbourg, 1994.

EHRENSBERGER 1897 : Ehrenberger Hugo, *Libri liturgici bibliothecae apostolicae Vaticanae manuscripti*, Freiburg, Herder, 1897.

FLEURIOT 1980 : Fleuriot Léon, *Les origines de la Bretagne*, Paris, Payot, 1980.

FÖRSTER 1933 : Förster Max, « The Donations of Leofric to Exeter », dans *The Exeter Book of Old English Poetry*, London, Lund Humphries, 1933, p. 10-32.

GABORIT-CHOPIN 1969 : Gaborit-Chopin Danièle, *La décoration des manuscrits à Saint-Martial de Limoges et en Limousin*, Genève, Droz, 1969.

GAMBER 1968 : Gamber Klaus, *Codices Liturgici Latini Antiquiores*, Spicilegii Friburgensis Subsidia, 1, 2^e éd., Freiburg, Universitätsverlag, 1968.

GAMESON 1996 : Gameson Richard, « The Origin of the Exeter Book of Old English Poetry », *Anglo-Saxon England*, XXV (1996), p. 135-185.

GAMESON 1999 : Gameson Richard, « Manuscrits normands à Exeter aux XI^e et XII^e siècles », dans Pierre Bouet & Monique Dosdat éd., *Manuscrits et enluminures dans le monde normand (X^e-XV^e siècles). Actes du colloque de Cerisy-la-Salle 1995*, Caen, Presses universitaires de Caen, 1999, p. 107-127.

GAVEL 1959 : Gavel Henri, « L'accentuation des mots du canon de la messe dans un manuscrit d'Angers: ms. 91 du X^e s. », *Études grégoriennes*, III (1959), p. 35-39.

GENGARO & VILLA GUGLIELMETTI 1968 : Gengaro Maria Luisa & Villa Guglielmetti Gemma, *Inventario dei codici decorati e miniati della Biblioteca Ambrosiana (secc. VII-XIII)*, Florence, Olschki, 1968.

GNEUSS 2001 : Gneuss Helmut, *Handlist of Anglo-Saxon Manuscripts: A List of Manuscripts and Manuscript Fragments Written or Owned in England up to 1100*, Medieval and Renaissance Texts and Studies, 241, Tempe (Arizona), Arizona Center for Medieval and Renaissance Studies, 2001.

GOUGAUD 1923 : Gougaud dom Louis, « Les relations de l'abbaye de Fleury-sur-Loire avec la Bretagne et les îles Britanniques (x^e et xi^e siècle) », *Mémoires de la Société d'histoire et d'archéologie de Bretagne*, IV (1923), p. 3-30.

Graduel 1957 : *Le Graduel romain. Édition critique par les moines de Solesmes*, II. *Les sources*, Solesmes, Abbaye Saint-Pierre, 1957.

GROSJEAN 1956 : Grosjean Paul, « Vie et miracles de saint Petroc : le dossier Saint-Méen », *Analecta Bollandiana*, LXXIV (1956), p. 470-496.

GUILLOTEL 1985 : Guillotel Hubert, « Recherches sur l'activité des *scriptoria* bretons au ix^e s. », *Mémoires de la Société d'histoire et d'archéologie de Bretagne*, LXII (1985), p. 9-36.

HAGEN 1875 : Hagen Hermann, *Catalogus codicum Bernensium*, Berne, Haller, 1875.

HANDSHIN 1950 : Handschin Jacques, « Eine alte Neumenschrift », *Acta musicologica*, XXII (1950), p. 69-96.

Harleian 1808 : *A Catalogue of the Harleian Manuscripts in the British Museum*, London, British Museum, 1808-1812.

HARTZELL 1981 : Hartzell Karl Drew, « The Early Provenance of the Harkness Gospels », *Bulletin of Research in the Humanities*, LXXXIV (1981), p. 85-97.

HARTZELL 1989 : Hartzell Karl Drew, « An Eleventh-Century English Missal Fragment in the British Library », *Anglo-Saxon England*, XVIII (1989), p. 45-97.

HARTZELL 2006 : Hartzell Karl Drew, *Catalogue of Manuscripts Written or Owned in England up to 1200 Containing Music*, Woodbridge, Boydell Press, 2006.

HEER 1910 : Joseph Michael Heer éd., *Evangelium Gatianum. Quattuor evangelia latine translata ex codice monasterii S. Gatiani Turonensis*, Fribourg-en-Brisgau, Herder, 1910.

HILEY 1980 : Hiley David, « The Norman Chant Traditions: Normandy, Britain, Sicily », *Proceedings of the Royal Musical Association*, CVII (1980-1981), p. 1-33.

HILEY 1992 : Hiley David, « The Sequentiary of Chartres. Bibliothèque Municipale, Ms. 47 », dans Agostino Ziino éd., *La sequenza medievale. Atti del Convegno internazionale*, Milano 7-8 aprile 1984, Lucca, Libreria musicale italiana, 1992, p. 105-117.

HILEY 1993 : Hiley David, *Western Plainchant: A Handbook*, Oxford, Oxford University Press, 1993.

HOMBURGER 1962 : Homburger Otto, *Die illustrierten Handschriften der Burgerbibliothek Bern. Die vorkarolingischen und karolingischen Handschriften*, Berne, Bern Burgerbibliothek, 1962.

OURLIER 1996 : Hourlier dom Jacques, *La notation musicale des chants liturgiques latins*, Saint-Pierre de Solesmes, 1996.

HUGLO 1953 : Huglo Michel, « L'auteur de l'Exultet pascal », *Vigiliae Christianae*, VII (1953), p. 79-88.

HUGLO 1954 : Huglo Michel, « L'origine bretonne du graduel n° 47 de Chartres », *Études grégoriennes*, I (1954), p. 173-178.

HUGLO 1963 : Huglo Michel, « Le domaine de la notation bretonne », *Acta musicologica*, XXV (1963), p. 54-84 [éd. revue dans *Britannia Christiana*, I (1981), p. 12-52].

HUGLO 1971 : Huglo Michel, *Les tonaires. Inventaire, analyse, comparaison*, Paris, Société française de musicologie, 1971.

HUGLO 1986-1 : Huglo Michel, « L'*organum* à Landévennec au ix^e siècle », *Études celtiques*, 23 (1986), p. 187-192.

HUGLO 1986-2 : Huglo Michel, « Les Évangiles de Landévennec », dans SIMON 1986, p. 245-252.

HUGLO 1989 : Huglo Michel, « Les origines de l'*organum* vocal en France et en Italie d'après les données de l'ethnomusicologie et d'après les sources historiques », dans Cesare Corsi & Pierluigi

Petrobelli éd., *Le polifonie primitive in Friuli e in Europa. Atti del Congresso internazionale, Cividale del Friuli, 22-24 agosto 1980*, Miscellanea musicologica, 4, Rome, Torre d'Orfeo, 1989, p. 355-365.

HUGLO 1990 : Huglo Michel, « Bilan de 50 années de recherches (1939-1989) sur les notations musicales de 850 à 1300 », *Acta musicologica*, LXII (1990), p. 224-259.

HUGLO 2005 : Huglo Michel, *Chant grégorien et musique médiévale*, Aldershot, Ashgate, 2005.

JAMES 1909 : James Montague R., *A Descriptive Catalogue of The Manuscripts in the Library of Corpus Christi College Cambridge*, Cambridge, Cambridge University Press, 1909.

JEFFERY 1983 : Jeffery Peter, « The Oldest Sources of the *Graduale*: A Preliminary Checklist of Manuscripts Copied Before About 900 AD », *Journal of Musicology*, II (1983), p. 316-321.

KARP 1998 : Karp Theodore, *Aspects of Orality and Formularity in Gregorian Chant*, Chicago, Northwestern University Press, 1998.

KER 1957 : Ker Neil R., *Catalogue of Manuscripts Containing Anglo-Saxon*, Oxford, Clarendon Press, 1957.

KEYNES 1985 : Keynes Simon, « King Athelstan's Books », dans LAPIDGE & GNEUSS 1985, p. 159-164.

KLIBANSKY & REGEN 1993 : Klibansky Raymond & Regen Frank, *Die Handschriften der philosophischen Werke des Apuleius: Ein Beitrag zur Überlieferungsgeschichte*, Abhandlungen der Akademie der Wissenschaften zu Göttingen. Philologisch-Historische Klasse, 3^e s., 204, 1993.

KOHLER 1893 : Kohler Charles A., *Catalogue des manuscrits de la Bibliothèque Sainte-Geneviève*, Paris, chez l'auteur, 1893.

LA VILLEMARQUÉ 1890 : La Villemarqué Théodore Hersart de, « Le manuscrit de Saint-Vougay », *Bulletin de la Société archéologique du Finistère*, XVII (1890), p. IX-XII et 20-23.

LAMBERT 1969 : Lambert Bernard, *Bibliotheca Hieronymiana manuscript. La tradition manuscrite des œuvres de saint Jérôme*, Gravenhage, Nijhoff, 1969-1972.

LANGLOIS 1911 : Langlois M., « Scribes de Chartres », *Revue Mabillon*, I (1911), p. 158-176.

LAPIDGE 1985 : Lapidge Michael, « Surviving Booklists From Anglo-Saxon England », dans LAPIDGE & GNEUSS 1985, p. 33-89.

LAPIDGE 1991 : Lapidge Michael, *Anglo-Saxon Litanies of The Saints*, Henry Bradshaw Society, 106, Woodbridge, Boydell, 1991.

LAPIDGE 1995 : Lapidge Michael, « Prolegomena to an Edition of Bede's Metrical *Vita Sancti Cuthberti* », *Filologia Mediolatina*, II (1995), p. 127-163.

LAPIDGE 2006 : Lapidge Michael, *The Anglo-Saxon Library*, Oxford, Oxford University Press, 2006.

LAPIDGE & GNEUSS 1985 : Lapidge Michael & Gneuss Helmut éd., *Learning and Literature in Anglo-Saxon England. Studies Presented to Peter Clemoes on the Occasion of His Sixty-Fifth Birthday*, Cambridge, Cambridge University Press, 1985.

LARGILLIÈRE 1942 : Largillièvre René, « La topographie du cartulaire de Landevennec », *Bulletin de la Société archéologique du Finistère*, LXIX (1942), p. 52-53.

LE BAUD 1638 : Le Baud Pierre, *Histoire de Bretagne*, Paris, Gervais Alliot, 1638.

LE BOURDELLES 1995 : Le Bourdelles Hubert, « Les Bretons à Montreuil-sur-Mer vers 920: leur création culturelle », *Bulletin de la Société nationale des antiquaires de France* (1995), p. 44-52.

LEMARCHAND 1863 : Lemarchand Albert, *Le catalogue des manuscrits de la bibliothèque d'Angers*, Angers, de Cosnier et Lachèse, 1863.

LEMOINE 1994 : Lemoine Louis, « Le scriptorium de Landévennec et les représentations de saint Marc », dans Danièle Conso, Nicole Fick & Bruno Pouille éd., *Mélanges François Kerlouégan*, Annales littéraires de l'université de Besançon, 515, Paris, Les Belles Lettres, 1994, p. 363-379.

LENOBLE 1982 : Lenoble Philippe, *La notation bretonne: missel de Saint-Melaine, XI^e siècle*, B.N. lat. 9439, Mémoire de l'École pratique des hautes études, Section des sciences historiques et philologiques, Section de paléographie musicale du Moyen Âge, Paris, 1982.

LENZ 2009 : Lenz Karmen, « Liturgical Readings of the Cathedral Office for Saint Cuthbert », *The Heroic Age. A Journal of Early Medieval Northwestern Europe*, XII (May 2009) <www.mun.ca/mst/heroicage/index.php>.

LEOFRIC *Missal* 1883 : Frederick E. Warren éd., *The Leofric Missal, as Used in the Cathedral of Exeter during the Episcopate of Its First Bishop, A.D. 1050–1072, Together with some Account of the Red Book of Derby, the Missal of Robert of Jumièges, and a few Other Early Manuscript Service Books of the English Church*, Oxford, Oxford University Press, 1883.

LEROQUAIS 1924 : Leroquais Victor, *Les sacramentaires et les missels manuscrits des bibliothèques publiques de France*, 3 vol., Paris, chez l'auteur, 1924.

LEROQUAIS 1937 : Leroquais Victor, *Les pontificaux manuscrits des bibliothèques publiques de France*, 4 vol., Paris, s.n., 1937.

LEVY 1987 : Levy Kenneth, « Charlemagne's Archetype of Gregorian Chant », *Journal of the American Musicological Society*, XL (1987), p. 1-30.

LOOMIS 1950 : Loomis Laura H., « The Holy Relics of Charlemagne and King Athelstan », *Speculum*, XXV (1950), p. 437-456.

LOWE 1956 : Lowe Elias Avery, *Codices latini antiquiores. A Palaeographical Guide to Latin Manuscripts Prior to the Ninth Century*, V-VII, Oxford, Clarendon Press, 1950-1956.

LIUZZA 2001 : Liuzza Roy, « Anglo-Saxon Prognostics in Context: A Survey and Handlist of Manuscripts », *Anglo-Saxon England*, XXX (2001), p. 181-230.

McGURK 1961 : McGurk Patrick, *Latin Gospel Books from A.D. 400 to A.D. 800*, Paris, Érasme, 1961.

MADAN 1895 : Madan Falconer, *Summary Catalogue of Western Manuscripts at Oxford*, Oxford, Oxford University Press, 1895-1953.

MARSDEN 1999 : Marsden Richard, « The Gospels of St Augustin », dans Richard Gameson éd., *St Augustine and the Conversion of England*, Phoenix Mill, Sutton, 1999, p. 285-312.

MERDRIGNAC 1985 : Merdrignac Bernard, *Recherches sur l'hagiographie armoricaine du VII^e au XV^e siècle*, Saint-Malo, Centre Régional Archéologique d'Alet, 1985.

MERDRIGNAC 2005 : Merdrignac Bernard, « Écriture sainte et réécriture de l'hagiographie bénédictine bretonne à Landévennec », dans Nicole Bouter éd., *Écrire son histoire : les communautés religieuses régulières face à leur passé*, Saint-Étienne, CERCOR, 2005, p. 317-326.

MERLET 1854 : Merlet Lucien, « Catalogue des livres de l'abbaye de Saint-Père de Chartres au XI^e siècle », *Bibliothèque de l'École des chartes*, XV (1854), p. 263-270.

MERLET 1885 : Merlet Lucien, *Catalogue des reliques et joyaux de Notre-Dame de Chartres*, Chartres, Garnier, 1885.

MERLET & CLERVAL 1893 : Merlet Lucien & Clerval Alexandre, *Un manuscrit chartrain du XI^e siècle*, Chartres, Garnier, 1893.

MEYVAERT 1956 : Meyvaert Paul, « Autour de Léon d'Ostie et de sa *translatio Clementis* », *Analecta Bollandiana*, LXXIV (1956), p. 189-240.

MOREY 1929 : Morey Charles Rufus, *The Landévennec Gospels, a Breton Illuminated Manuscript of the Ninth Century*, New York, New York Public Library, 1929.

MOREY, RAND & KRAELING 1931 : Morey Charles Rufus, Rand Edward Kennard & Kraeling Carl H., *The Gospel Book of Landévennec (the Harkness Gospels) in the New York Public Library*, Cambridge, Harvard University Press, 1931.

MOSSHAMER 1975 : Mossamer Alden A., « Lucca Bibl. Capit. 490 and the Manuscript Tradition of the Jerome (Eusebius) Chronicle », *California Studies in Classical Antiquity*, VIII (1975), p. 203-240.

MOSTERT 1986 : Mostert Marco, « Le séjour d'Abbon de Fleury à Ramsey », *Bibliothèque de l'École des chartes*, CXLIV (1986), p. 199-208.

MOSTERT 1989 : Mostert Marco, *The Library of Fleury: A Provisional List of Manuscripts*, Hilversum, Verloren, 1989.

NOISEUX 2004 : Noiseux Jean-Pierre, « Les manuscrits de chant en communication à Solesmes (1866-1869) d'après des documents d'archives de l'abbaye de Saint-Wandrille », *Études grégoriennes*, XXXII (2004), p. 153-176.

NOTICES 1884 : *Notices et extraits des manuscrits de la Bibliothèque nationale et autres bibliothèques*, XXXI, Paris, Institut national de France, 1884.

O'BRIEN O'KEEFFE 2003 : O'Brien O'Keefe Katherine, *Anglo-Saxon Manuscripts in Microfiche Facsimile, X. Manuscripts Containing the Anglo-Saxon Chronicle, Works by Bede, and Other Texts*, Tempe (Arizona), Arizona Center for Medieval and Renaissance Studies, 2003.

ORCHARD 2001 : Orchard Nicholas, *The Leofric Missal*, Henry Bradshaw Society, 113-114, Woodbridge-Rochester, Boydell, 2001-2002.

OURY 1967 : Oury Guy-Marie, « Formulaires anciens pour la messe de saint Martin », *Études grégoriennes*, VII (1967), p. 21-40.

PÄCHT & ALEXANDER 1966 : Pächt Otto & Alexander Jonathan J. G., *Illuminated Manuscripts in the Bodleian Library*, London, Methuen, 1966.

Paléographie musicale II-III: *Le répons-graduel 'Justus ut palma'*, reproduit en fac-similé d'après plus de deux cents antiphonaires manuscrits d'origines diverses du IX^e au XVI^e siècle, Paléographie musicale, II-III, Tournai, 1891.

Paléographie musicale XI: *Antiphonale missarum Sancti Gregorii*, X^e siècle, codex 47 de la Bibliothèque de Chartres, Paléographie musicale, XI, Tournai, 1912.

Paléographie musicale XVII: *Fragments des manuscrits de Chartres*, Paléographie musicale, XVII, Solesmes, Abbaye Saint-Pierre, 1958.

PELLEGRIN 1988 : Pellegrin Élisabeth, *Bibliothèques retrouvées : manuscrits, bibliothèques et bibliophiles du Moyen Âge et de la Renaissance*, Paris, CNRS, 1988.

PLAINE 1877 : Plaine dom François, « Le Missel de Saint-Vougay », *Revue de l'art chrétien*, VI (1877), p. 257-275.

PLANCHART 1977 : Planchart Alejandro Enrique, *The Repertory of Tropes at Winchester*, Princeton, Princeton University Press, 1977.

PONCELET 1910 : Poncelet Albert, *Catalogus codicum hagiographicum latinorum Bibliothecae Vaticanae*, Subsidia Hagiographica, 11, Bruxelles, Société des Bollandistes, 1910.

POTHIER 1877 : Pothier dom Joseph, « Quelques mots sur la notation du chant grégorien à propos du Missel de Saint-Vougay », *Revue de l'art chrétien*, VII (1877), p. 211-220.

POUDEROIJEN 1995 : Pouderoijen Kees, « L'interprétation des indications modales du graduel Chartres 47 », dans *Requirentes modos musicos. Mélanges offerts à Dom Jean Claire*, Abbaye Saint-Pierre-de-Solesmes, Éditions de Solesmes, 1995.

PROFESSIONE 1967 : Professione Alfonso, *Inventario dei manoscritti della Biblioteca capitolare di Ivrea*, Alba, Tip. Domenicane, 1967.

RAND 1929 : Rand Edward K., *A Survey of the Manuscripts of Tours*, Cambridge, Massachusetts, The Mediaeval Academy of America, 1929.

RANKIN 1987 : Rankin Susan, « Neumatic Notations in Anglo-Saxon England », dans Michel Huglo éd., *Musicologie médiévale : Notations et séquences*, Paris, Honoré Champion, 1987, p. 129-144.

RASMUSSEN & HAVERALS 1998 : Rasmussen Niels Krogh & Haverals Marcel, *Les pontificaux du haut Moyen Âge: Genèse du livre de l'évêque*, Études et documents, 49, Louvain, Spicilegium Sacrum Lovaniense, 1998.

RICHÉ 2004 : Riché Pierre, « Relations entre l'abbaye de Fleury-sur-Loire et les pays celtiques (x^e-xi^e s.) », dans *Corona monastica. Mélanges offerts au père Marc Simon*, *Britannia monastica*, VIII (2004), p. 17-22.

RICE 1952 : Rice David Talbot, *English Art, 871-1100*, Oxford, Clarendon Press, 1952.

ROSENTHAL 1992 : Rosenthal Jane T., « The Pontifical of Saint Dunstan », dans Nigel Ramsey, Margaret Sparks & Tim Tatton-Brown éd., *Saint Dunstan, His Life, Times and Cult*, Woodbridge, Boydell, 1992.

SALMON 1854 : Salmon André, « Chronicon rhythmicum Sancti Juliani Turonensis », dans *Recueil de chroniques de Touraine*, Tours, Ladevèze, 1854, p. 239-243.

SALMON 1968 : Salmon Pierre, *Les manuscrits liturgiques latins de la Bibliothèque Vaticane*, Vatican, Biblioteca Apostolica Vaticana, 1968-1972.

SCHLAGER 1965 : Schlager Karl-Heinz, *Thematischer Katalog der ältesten Alleluia Melodien aus Handschriften des 10. Bis 11. Jahrhunderts*, Munich, Ricke, 1965.

SCHLAGER 1968 : Schlager Karl-Heinz, *Alleluia-Melodien bis 1100*, Monumenta monodica Medii Aevi, VII, Kassel, Bärenreiter, 1968.

SIMON 1985 : Simon dom Marc éd., *L'abbaye de Landévennec de saint Guénolé à nos jours*, Rennes, Ouest-France, 1985.

SIMON 1986 : Simon dom Marc éd., *Landévennec et le monachisme breton dans le haut Moyen Âge*, Rennes, Ouest-France, 1986.

SNIZKOVA 1988 : Snizkova Jitka, « Un évangéliaire provenant de Saint-Omer », dans *Revue de musicologie*, LXXIV (1988), p. 69-74.

SOLE 1998 : Sole Laura M., « Some Anglo-Saxon Cuthbert Liturgica : The Manuscript Evidence », *Revue bénédictine*, CVIII (1998), p. 104-144.

SPRINGER 1995 : Springer Carl P. E., *The Manuscripts of Sedulius: A Provisional Handlist*, Philadelphia, American Philosophical Society, 1995.

STAINER 1913 : Stainer John Frederick Randall & Stainer Cecie, *Early Bodleian Music*, London, Novello, 1913.

TANGUY 1990 : Tanguy Bernard, *Dictionnaire des noms des communes du Finistère*, Douarnenez, ArMen-Le Chasse-Marée, 1990.

TANGUY 2002 : Tanguy Bernard, « Anciennes litanies bretonnes des X^e et XI^e siècles », *Bulletin de la Société archéologique du Finistère*, CXXXI (2002), p. 453-479.

TEMPLE 1976 : Temple Elzbieta, *Anglo-Saxon Manuscripts 900-1066*, II. *Survey of Manuscripts Illuminated in the British Isles*, London, Harvey Miller, 1976.

Trésors 1989 : *Trésors des bibliothèques de Bretagne, Château des ducs de Rohan, Pontivy, 15 juin-15 septembre 1989*, Vannes, Agence de coopération des bibliothèques de Bretagne, 1989.

TURCAN-VERKERK 2007 : Turcan-Verkerk Anne-Marie, « Ouvrages de dames ? À propos d'un catalogue du XI^e siècle jadis attribué à Notre-Dame de Paris », *Scriptorium*, LXI (2007), p. 286-353.

VALERY 2005 : Valery Raphaël, « La bibliothèque de la première abbaye de Saint-Gildas de Rhuys », *Mémoires de la Société d'histoire et d'archéologie de Bretagne*, LXXXIII (2005), p. 29-88.

VANDERPUTTEN 2006 : Vanderputten Steven, « Canterbury and Flanders in the Late Tenth Century », *Anglo-Saxon England*, XXXV (2006), p. 219-244.

VEZIN 1974 : Vezin Jean, *Les scriptoria d'Angers au XI^e siècle*, Paris, Honoré Champion, 1974.

VIDIER 1965 : Vidier Alexandre, *L'historiographie à Saint-Benoît-sur-Loire et les miracles de saint Benoît*, Paris, Picard, 1965.

WICKERSHEIMER 1966 : Wickersheimer Ernest, *Manuscrits latins de médecine du Haut Moyen Âge*, Paris, CNRS, 1966.

WIESLI 1966 : Wiesli Walter, *Das Quilisma im Codex 359 der Stiftsbibliothek St. Gallen, erhellt durch das Zeugniss der Codices: Einsiedeln 121, Bamberg lit. 6, Laon 239 und Chartres 47: Eine paläographisch-semiologische Studie*, Immensee, Missionshaus Bethlehem, 1966.

WILMART 1945 : Wilmart André, *Codices Reginenses Latini*, II, Vatican, Biblioteca Apostolica Vaticana, 1945.

WORDSWORTH & WHITE 1889-1898 : Wordsworth John & White Henry Julian éd., *Novum Testamentum domini nostri Iesu Christi Latine secundum editionem Sancti Hieronymi*, Oxford, Clarendon Press, 1889-1898.

WORMALD 1977 : Wormald Francis, *An Early Breton Gospel Book*, éd. Jonathan J. G. Alexander, Cambridge, Roxburghe Club, 1977.

MANUSCRITS CITÉS

Angers, BM, 91, 811.

Berne, Bürgerbibliothek, 85, 160, 167, 179, 219.

Boulogne, BM, 8.

Cambridge, Corpus Christi College, 146.

Cambridge, University Library, Kk.i.24.

Chartres, BM, 47, 110, 152.

Douai, BM, 13.

Ivrea, Biblioteca capitolare, ms 91 (LX).

Leiden, Rijksuniversiteit Bibliotheek, BPL, 25.

London, BL, Cotton Vitellius A.XIX; Egerton 609; Harleian 526, 1117.

Milan, Biblioteca Ambrosiana, L 77 sup.

New-York, Public Library, 115.

Orléans, BM, 302.

Oxford, Bodleian Library, Bodl. 394, 579, 859; Auct. D 2 16, F 4 26.

Paris, BnF, Lat. 943, 1154, 8883, 9439, 11589, 12021, 14782, 5082; N. A. Lat. 1587, 1630.

Paris, Bibliothèque Mazarine, 421, 1707.

Paris, Bibliothèque Sainte-Geneviève, 223.

Quimper, Archives départementales du Finistère, 4J 96.

Saint-Omer, BM, 666.

Saint-Paul-en-Carinthe, Benediktinerstifts, 27.4.35.

Tongres, Collégiale de la Nativité, Évangéliaire de Saint-Bern.

Valenciennes, BM, 407.

Vatican, BAV, Reg. Lat. 204, 486, 523, 552; Vat. Lat. 4197, 4201, 6083, 9668.

6

Dating neumes according to their morphology: the corpus of Toledo

The oldest Christian liturgy of the Iberian Peninsula is known as Hispanic, Visigothic, or Mozarabic. Its origins go back to the fourth century, and its consolidation took place at the time of the Councils of Toledo. The fourth council, convened in the year 633, was especially significant in the sense of unification¹: *Unus igitur ordo orandi atque psallendi a nobis per omnem Hispaniam atque Galliam [Narbonensem] conservetur, unus modus in missarum solemnitatibus, unus in vespertinis, matutinisque officiis*. Despite the antiquity of the Hispanic rite, the preserved manuscripts of its musical liturgy date from a late, if not indeed final phase relative to its origins. Most of these musical-liturgical codices date back to the period between the late eleventh and the mid twelfth century.² Sources prior to the tenth century are very rare.³ Manuscripts from the fourteenth century are just as scarce. Still, these two chronological extremes attest to the longevity of a rite that, despite the vicissitudes to which it was subjected from the time of its origins, was able to flourish for over more than five centuries.

The dating of Visigothic codices with musical notation is more difficult than for any other corpus of liturgical music, resulting in discrepancies of up to several centuries.⁴ Particularly extreme is the case of the books of Toledo, both those with and those without musical notation, whose dating continues to be debated up to the present. This seems to indicate that Visigothic script and musical notation might lack the sufficiently specific features that would enable a precise chronological ordering of books.

This essay will focus on the corpus of the codices of Toledo in order to present some thoughts on dating Visigothic sources, by setting out from a canon of objective criteria

1. TEJADA Y RAMIRO 1849, p. 263.

2. 0,8 % 7th century; 5,7 % 8th century; 20,8 % 9th century; 32,8 % 10th century; 27,6 % 11th century; 7,7 % 12th century; 1,7 % 13th century; 0,3 % 14th century. MILLARES CARLO 1999.

3. The two oldest liturgical-musical specimens of the Hispanic rite originate from the north of the peninsula; not from Castile, León, or Asturias but rather from the Catalan zone: the ancient province of Tarragona. See Tarragona, Archivo Histórico Archidiocesano, Fragmento 22/1 (s. ixth), Montserrat, Biblioteca de la Abadía (s. ixth). MUNDÓ 2007, p. 17-18. The dating of the fragments here has suffered an unfortunate printing error: 'xi' should be 'ix', and '11th' should be '9th'.

4. The difficult dating of some of the Visigothic codices with notation, particularly those of Toledo, has been dealt with in ZAPKE 2007, p. 208-210 and 215.

centered on the morphology of the notation. I will close with some working hypotheses regarding the two schools of Visigothic notation in the peninsula, those of the north and south – hypotheses that question certain interpretations which have up to now been accepted as valid.

It is common knowledge that Visigothic script systems continued to be used long after the official suppression of the liturgy. Textual as well as notational scripts were used in the south of the peninsula, specifically in Toledo, up to the fourteenth century. The only similar, if more extreme, case of the prolonged utilization of a script system is that of the Beneventan script, used well into the fifteenth century.⁵ Among the archaic occidental liturgies there is none which in respect to musical notation persisted so long as the Visigothic.

We need to inquire, in a more detailed fashion, regarding the identities of the manuscripts comprising the 'Corpus Toledano'; whether it is possible to find a morphological evolution in their notation and to what extent formal and contextual elements can support their dating. The difficulties posed here are not confined to the notation but also extend to the written text.⁶ Proof of this is that differing analyses by paleographers and by experts in liturgical history have both arrived at erroneous conclusions in the matter of dating. Authors of recognized competence such as Rojo y Prado, Férotin, Brou, Sunyol, Wagner, Anglés, Millares Carlo and García Villada attributed early dates to Visigothic books and fragments produced in a later period. In the case of Toledo the errors of dating also appear with respect to non-musical Visigothic sources. For example, Toledo, Biblioteca Capitular, ms. 33-1, (*Homiliae super Evangelia*) was originally assigned to the tenth century, even though according to Mundó it dates from the second half of the twelfth century; Toledo, BC, ms. 99-30 (*Grammatica*) originally assigned to the ninth century, but later to the end of the twelfth century; or Toledo, BC, ms. 35-8 (*Liber Commicus*) which according to Férotin dates from between the ninth and tenth centuries, according to Mundó from the mid twelfth century, and according to Díaz y Díaz from the turn of the twelfth to the thirteenth century.⁷

But the most obvious case of the gap between the authentic dating of a codex and the date assigned by experts is that of the corpus of musical codices.⁸ Don Randel published his foundational study on the responsorial psalms of the Hispanic rite in 1969; but four years earlier (so 1965) Mundó had already published a revision of the dating of the Corpus Toledano which Randel was aware of but did not incorporate into his work.⁹ Randel, together with other specialists, took to be accurate the dates previously attributed by Férotin, Brou, Millares Carlo, and Pinell.¹⁰ The revised dating of the nine Toledo codices dealt with in Randel's study is as follows (brackets indicate the datings assumed by Randel).¹¹

5. LOWE 1914, p. 334-370; HUGLO 1964; FINCH 1966.

6. A clear example of the difficulty of establishing typological and chronological frontiers between different models of handwriting can be seen in the case of Visigothic influence on Italian script. See SCHIAPARELLI 1927.

7. FÉROTIN 1904, p. xiii; MUNDÓ 1965, p. 16-21; MILLARES CARLO 1999, vol. 2, p. 195.

8. This erroneous conclusion was arrived at partly due to the myth that the cantors of Cisneros relied on the earliest codices of the Mozarabic liturgy, those of the *traditio toledana*, from which it follows that the codices preserved in the cathedral of Toledo corresponded to these most archaic forms. See ZAPKE (forth.).

9. MUNDÓ 1965; RANDEL 1969, p. 7.

10. FÉROTIN 1904; FÉROTIN 1912; BROU 1952, p. 23-44; MILLARES CARLO 1935; PINELL 1957.

11. For a description of the codices, see FÉROTIN 1912, p. 680-766.

1. Toledo, BC, ms. 33-3, end of 12th century [9th century]
2. Toledo, Museo de los Concilios (*olim* Sta. Cruz), 1325, 13th century [9th century]
3. Toledo, BC, ms. 35-4, 13th century [9th/10th century]
4. Toledo, BC, ms. 35-5, mid 13th century [9th/10th century]
5. Toledo, BC, ms. 35-7, 11th/12th century [9th/10th century]
6. Madrid, BN ms. 10001 (*olim* 35-1), 12th/13th century [9th/10th century]
7. Fragmento de Cincinnati (lost), 13th century [9th/10th century]
8. Madrid, BN, ms. 10110 (*olim* 35-2), 13th/14th century [9th/10th century]
9. Madrid, BN, ms. 13.060 (copy from the 18th century, Palomares)

The new dating by Mundó and Díaz y Díaz situate the origins of these manuscripts anywhere from one to three centuries later than previously thought.¹² The results of Randel's study, although based on incorrect, older dates, are nevertheless surprisingly valid in that they give proof to the coherence and stable transmission of the liturgical-musical content in these codices.

Specialists have adopted without reservations older dating, based strictly on paleographic criteria, and viewed as secondary those criteria referring to notational morphology, melodic typologies or structural logic of the repertory.¹³ Mundó's arguments for setting back the dating are based upon fundamental paleographic-textual criteria, and address only peripherally aspects of notation. Setting out from a similar philological-paleographic point of view, Díaz y Díaz revised the dating of various musical sources, in some cases defending dates even later than those proposed by Mundó. On the question of notation, the experts, without resort to rigorous analytic study, have set out from the assumption that the notation of the south presented more archaic forms and therefore belonged to an earlier era than the more elaborate and coherent notation of the north.¹⁴ But it has been shown that, in the field of notation, simple forms do not automatically precede complex ones, and 'inconsistency' does not always precede 'consistency'.

There is no definite consensus from textual paleographers regarding the dating of Visigothic codices, and therefore it has not been possible in the field of notation to create a working tool that would permit the objective dating of the various notational morphologies transmitted in Toledo codices.

The dates put forward above raise various questions. Is it possible to establish a catalogue of specifically musico-paleographic criteria for the dating of Toledo codices? With relation to the liturgical tradition a question arises that is applicable to nearly all oral repertoires: to what extent does the setting down in written notation influence an eminently oral tradition? This leads us directly to the problem of the two traditions, north and south, and to the existing difference in the use of responsorial tones that was elucidated by Randel. The fact that the Visigothic rite is transmitted through two written traditions in different notational systems, practiced at different times and in different political-cultural contexts,

12. MUNDÓ 1965, p. 21. Janini differs in his view of several datings; see JANINI, GONZÁLVEZ & MUNDÓ 1977.

13. The problem of dating is aggravated by the confusion caused by certain manuscripts such as Toledo 381, Biblioteca Pública de Toledo, Colección Borbón-Lorenzana, Codex *Miscelaneus*, detected by DÍAZ Y DÍAZ 1972. One should also mention the modern desecration of certain codices, such as that carried out by the inquisitor and Mozarabic chaplain of Toledo, Don Pedro Camino († 1622), who erased the Visigothic notation in some passages of Codex To. 35-4 (s. XII-XIII) with the aim of legitimating its antiquity, and also for the same motive interpolated a *Regnante Domino Adelpho* in To. 35-2. Regarding the subject of the restoration of the Mozarabic rite in the fifteenth century against the background of the Inquisition, see ZAPKE 2008.

14. See, among others, ROJO & PRADO 1929.

is of central significance when considering the codices of the south. But even more basic questions arise concerning the Corpus of Toledo, such as: why are there no codices before the twelfth century? And: what written models did copyists use when producing those codices written down between the twelfth and fourteenth centuries?

Regarding the first question, there is a line of thought which, even though not sufficiently supported by empirical evidence, has been accepted by consensus. It refers to the destruction of Visigothic codices carried out by the Archbishop of Cluny Bernardo de Sahagún (1085-1125).¹⁵ Whether this is legend or history, the fact is that no sources with notation survive from Toledo before the twelfth century, whereas fragmentary sources with northern notation dating as far back as the ninth century have been preserved. It is also surprising not to find codices using southern notation in centres of the northern part of the peninsula, since such codices would probably have been carried off by Mozarabians during their emigration to the north. On the other hand, it is well-known that several codices in Toledo include northern notation or annotations in the northern manner.¹⁶

Equally significant is the second question regarding models used for copying musical codices. In order to shed light on this question, one should keep in mind the circulation of manuscripts between north and south that developed during the Muslim occupation, and the intense activity of copyists in Toledo from the eleventh century onwards, after the reconquest of that city by Alfonso VI in 1085. In the Mozarabic cultural milieu of the twelfth century all sorts of texts continue to be copied in Visigothic script, for example those specific to the educational systems of the quadrivium and trivium: the *Gramática*, To. 99-30, late twelfth century, with glosses in Arabic, and the *Aritmética* of Boethius, Barcelona, Archivo de la Corona de Aragón, Rivipullense 168. Both these manuscripts, possibly of Cordobese origin, are clear examples of north-south interaction and of the exchange of models for copying.¹⁷ They are significant in that they demonstrate the intense activity of a scriptorium with specialists in Visigothic script, and with close relations to the centres of the north. A legitimate question then arises: if some manuscripts from the north served as models for copyists in Toledo, could the same also have been the case for liturgical-musical codices? Later in this essay I will answer this question in the affirmative. There is yet one more question that adds to the complexity of the study of the Visigothic rite: were the codices of southern origin models for copyists and objects for practical use in the centres of the north? Two concrete examples confirm such a premise. The antiphonal of León, from the middle of the eleventh century, is, according to Díaz y Díaz, the copy of a model of southern origin, specifically from Beja (Alentejo, Portugal). This means that a manuscript of northern (León) tradition, regarded by Randel in his study as archetypical, has its roots in the Mozarabic milieu of the southern part of the peninsula. After having scrupulously differentiated the two traditions – and within the first of these, between the tradition of León and that of Rioja – Randel argues in passing for a possible origin of the antiphonal of León.¹⁸

15. Mundó affirms with respect to Bernardo that, ‘no es excederse cargarle con la culpa de la destrucción de la mayoría o quizás de todos los códices visigóticos de materia canónica y litúrgica que encontró en su sede’. See MUNDÓ 1965, p. 22.

16. Madrid, BN 10001 (*olim* To. 35-1).

17. MILLARES CARLO 1935, p. 196.

18. RANDEL 1969, p. 95: ‘One possibility is that what we have called the León tradition is an import from the south – from lands still controlled by the Moslems in the 10th and 11th centuries ... and that many of the monasteries founded on the Leonese plain at the end of the 9th and beginning of the 10th centuries were populated by monks from Andalucía’.

Other facts as well point to a north-south interaction. The first prologue of the antiphonal of León, fol. 2^v, refers to the *uctoritas* of the Toledan tradition: *secundum quod veridica et sancta et tam synodali robore firmata nobis auctoritas tradidit Toletana*.¹⁹ And fol. XL defers once again to Toledo: *hec sunt nomina sanctorum que in arcivio Toletano reperta sunt*.

Peter Wagner and Higiní Anglès presented broad arguments for placing the model for the antiphonal of León in the south of the peninsula. While Wagner left open its exact location, Anglès did not doubt the model's Toledan origins; that it was written for the basilica of Santa Leocadia, as clearly shown by the office *ad sepulcrum* to that saint included in the antiphonal.²⁰

Another manuscript, the fragment of a Visigothic antiphonal Madrid, BN 11556 comes from San Zoilo de Carrión (Plasencia), while actually – despite its notation, that of the north of the peninsula – originating in the founding abbey of San Zoilo in Córdoba.²¹ For Randel, at any rate, the origins of the models used for the antiphonal as well as for the fragment do not conflict with its belonging to a specifically Leonese liturgical-musical tradition.²²

In light of the above, we are faced with the necessity of revising precepts assumed to be valid in the matter of Visigothic liturgy and Visigothic notation. The division between the notation of the north and that of the south is more complex than it was originally taken to be.²³ The vertical notation of the north is not exclusive to the north, just as the horizontal notation of the south is not exclusive to the south. The examples here referred to suffice to show this. The study of the newly dated Corpus Toledano opens new perspectives of investigation while at the same time putting into question certain conclusions accepted by the scientific community.

Summarizing the facts and conflicting hypotheses presented above, I will now conclude with a series of hypotheses and questions about the Visigothic corpus of Toledo.

Within the corpus of Toledan codices that have notation, not a one antedates the twelfth century. Not even the book regarded as the oldest one, To. 35-7, presents notational features contradicting this view. In the case of the most recent manuscript – Madrid, BN 10110 (*olim* To. 35-2) – specific aspects of its notation that would justify dating it from the fourteenth century are similarly missing.²⁴

Up until now the only, as well as oldest, manuscript from the eleventh century with southern notation is a fragment originating from Coimbra (see Pl. 4).²⁵ This fragment confirms the existence of a slanted notation whose *ductus* is connected to a specific cultural milieu and tied to a liturgical praxis different from that of the north. If this fragment did not exist, it would be possible to accept the notion of Toledan notation as having evolved late, or as having derived from a characteristically Visigothic notation represented in the

19. See the publication of the two prologues in BROU & VIVES 1959, p. 2-9; DÍAZ Y DÍAZ 1954. Elsewhere, the author of the first prologue speaks of the decadence of the Hispanic rite and of cantors who no longer know how to interpret the neumes: *Disparesque modos nunc te Ecclesia canet, finitam habentes hanc artem prefulgidam: plerasque sedes inlustras dogma antiqua, multique viri te viciatum tenent.*

20. WAGNER 1928, p. 114-116; ANGLÈS 1938, p. 42.

21. Brou and Moll Roqueta were the first to notice that the northern notation was used in some centres of the south. Louis Brou affirms: 'le fait que celui-ci [fragment of Carrión] est écrit en notation du nord de l'Espagne ne prouvant rien, puisqu'on ignore toujours quelle était la notation en usage à Cordoue'. See BROU 1952, p. 72.

22. RANDEL 1969, p. 95: 'But whatever the origins of their models, both AL [León] and Sant [sic! San Zoilo] are evidently products of the kingdom of León'.

23. To this end I have contributed additional data in the first part of ZAPKE 2007, p. 209-215.

24. A detailed study on this point is currently in production and intended for future publication.

25. *Hispania Vetus* 2007, p. 312-313.

codices of the north. The Coimbra fragment is the only proof that both morphologies coexisted from at least the eleventh century onwards.

The thesis regarding the greater antiquity of southern notation is also disproved by the revised dating of the corpus of Toledo. Anglés, without being aware of Mundó's revision, came to the same conclusion.²⁶

The copying of Toledan Visigothic manuscripts with music notation and the necessity of setting down the Toledan tradition in written form gained a new impulse after the reconquest of the city in 1087. The models for the copies are unknown but there is sufficient evidence to assume an exchange between the reconquered parts of the peninsula and those still under Muslim control. This hypothesis is supported by the coexistence of northern and southern musical notation in Toledo manuscripts.

Without entering into an analysis of each and every element of the Visigothic notational corpus of Toledo, I will now summarize its most significant features. The Coimbra fragment contains a notational inventory to some extent different from those of the later manuscripts To. 35-5 and To. 35-7. Even though this fragment of two folios does not enable a study of the complete inventory, it offers at least a representative sample. The slanting of the script towards the right is similar to that in other codices, but the use of repetition signs below the text and that of red ink is specific to Coimbra and to the codices of the north.

The neumes present a clearer profile here than in the Toledan codices. Two special signs are also used: the torculus composed of two untied elements above *illum* and *-lūia*, and the clivis at the end of the second *-lūia* (see Pl. 4). The Coimbra fragment also uses the same curled neumes as those found in northern notation. Compared to northern codices, its notational inventory includes fewer graphic variants of the same neume – for example the *porrectus*, which appears in only two versions – whereas Silos and León use about twenty different orthographies. The reduction in the number of graphic variants is indubitably a characteristic trait of southern notation.

In codices To. 35-5 and To. 35-7 the notation presents more stylized features and is somewhat mannered, with a cursive ductus, reflecting a late dating like that which can be deduced from other notations (see Pl. 5). Other features, such as the addition of accents and letters over the neumes with dynamic or rhythmic values and the disappearance of repetition signs below the text, give this notation its uniqueness. In all the Toledan codices the notation is fast and careless. In To. 35-7 a second hand seems to want to 'translate' the melody by placing notational symbols above the Visigothic neumes (fol. 94^v; see Pl. 6).

In none of the codices has the copyist anticipated the space needed for the notation. The most extreme case is found in codex 1325 in the Museo de los Concilios in Toledo, where the 'Alleluia del Laudes' is squeezed into three interlinear spaces, an illegible passage for those who did not know this repertoire by heart (see Pl. 7).

The Toledan corpus gives the impression of being a late creation, prompted by political-cultural forces attempting to legitimate and conserve the authenticity of the Visigothic rite originating from Toledo, capital of the kingdom, in a manner similar to the later reform of Cisneros during the fifteenth century. The use of the monogram *Ildefonsi* in codex To. 35-6, fol. 124^r, is a clear sign of the context in which the codices were copied, the *Reconquista* of Alfonso VI. It is an attempt to 'reconstruct' and conserve the old rite in re-conquered territory. The notation is part of a broader construct, namely, a conscious

26. Anglés, evidently going on refined intuition rather than empirical knowledge, affirmed that '*no vemos aún claro, si la sola apariencia de arcaísmo y primitivismo de los neumas toledanos es suficiente para admitir que los neumas toledanos horizontales sean más antiguos que los otros verticales*'. See ANGLÉS 1938, p. 42.

definition of identity. But To. 35-6 is also a Toledan codex with northern notation, dating – so far as I can tell – from the late eleventh and not the late tenth century, as I suggested a few years ago in *Hispania Vetus*.²⁷ This seems to suggest that experts from the northern part of the peninsula had some control during the period in which Toledan codices were copied, and that exemplars from the north were almost certainly used. Codex To. 35-6 yields significant information on this point. Here as well several hands are at work. The musical notation was not originally planned for, and therefore there are gaps between text and notation (To. 35-6, fol. 168^v and fol. 135^v). There are numerous corrections in the text (fol. 124) as well as neumes and melodic formulas written on the margins. Many pieces lack notation. This is a heterogeneous product, in which various hands drawing upon the traditions of different script systems and notational inventories are at work.

The coexistence of northern and southern forms in the Corpus of Toledo is therefore of great significance to the history of notation in the peninsula. Noting the information presented above about the antiphonal of León and other northern manuscripts copied after southern models, it seems probable that the vertical notation was originally practiced in all of the peninsula, and therefore that the horizontal notation of Toledo was the product of a specific environment rather than generally disseminated in all of the southern part of the peninsula. We should also recall that Coimbra, the only other location where horizontal notation was practiced, originally had strong ties to the cultural centre of Toledo. It is difficult to present a concrete solution regarding the identity of the models used for copying. The assembled facts vouch for a relationship with the north, but only a detailed analysis of the script and notation, as well as a comparison of melodies in northern manuscripts, can confirm this hypothesis.

One last point can be added that supports the hypothesis of a late date for the copying of Toledan codices, as well as our hypothesis about their joint production by northern notators and Toledo scribes. It is unusual in Visigothic codices to find a colophon with the name of the scribe, something almost exclusively restricted to regal codices. Despite this, in the case of Toledo, several scribes are known by name. As stated in the *Liber Misticus* from the turn of the thirteenth to the fourteenth century (Madrid, BN 10110, *olim* To. 35-2): *Finit, Deo gratias, hic liber per manus Ferdinandum Johannis presbiter eglezie sanctarum Juste et Rufine civitatis Toleti in mense aprilis. O frater quisquis legerit ora pro me emenda eum prudenter et noli me maledicere si dominum nostrum Ihsu Xpm abeas protectorem.* The Church of Saints Justa and Rufina was one of the places in Toledo that was allowed to celebrate the Mozarabic rite.

The codex commented upon above, To. 35-7, ends the treatise *De Virginitate* from San Idelfonso with the inscription *Sebastianus scriptor.* In the *Psalterium, Cantica et Hymni*, Madrid, BN 10001, fol. ?, one reads, *Mauro pbsro. scriptor.* In Madrid, BN 10110, one reads, *Ferdinandum Iohannis presbiter eglezie sanctarum Iuste et Rufine civitatis Toleti.* In Toledo 15-17, one finds the inscription *Abundantius presbiter librum.* This occurs in a *Collectio Conciliorum Hispana* from the year 1095 that ends in the same manuscript with the colophon: *Finit liber canonum concilii sanctorum Patrum sev decreta presulum romanorum feliciter, Deo gratias. Iulianus indignus presbyter scripsit, is, cuius est adiuvante Deo habitans in Alkalaga que sita est super campum laudabilem, IIII^a feria, XVII Kalendas iunias era TCXXIII.* The colophon is of great interest since it fixes the time of the copying of the codex as that of the full re-conquest of Alcalá *super campum laudabilem*, a reference to the castle (*Alkalá* being Arabic for ‘castle’) of the ancient Compluto, the Moorish

27. *Hispania Vetus* 2007, p. 300.

castle of Alcalá de Henares re-conquered in 1118. During the reign of Alfonso VI, the Mozarabic chapel of the child saints Justo and Pastor would be founded in Toledo; Justo and Pastor came precisely from Alcalá. The origin of this codex, copied just north of the church of the saints Justo and Pastor in Toledo, might be a new indication confirming the hypothesis of a joint action to reinitiate the Visigothic rite in Toledo, then recently re-conquered. The *Epistulae* of Elipando, the *Canticum Canticorum* of Justus Urgellensis and the *Carminis paschalis fragmentum et alia* of Sedulius are found in codex To. 4-23, copied at the end of the eleventh century by a certain Vincentius. At the beginning of this codex, one finds the celebrated letter of Elipando addressed to the Council of Frankfurt: *Galliae atque Aquitaniae atque Austriae cunctis sacerdotibus, nos indigni et exigui Spaniae praesules et caeteri Christi fideles in Domino, aeternam salutem*, defending the Visigothic rite against accusations of adoptionism. This codex was also copied in Córdoba or in Toledo at the time of the *Reconquista*, perhaps at the same time as the well-known prologues of the antiphonal of León.

The fact that so many canonical, theological, and liturgical-musical texts were copied towards the end of the eleventh century, just after the reconquest of Toledo, points to the existence of a pro-Visigothic movement, the saviour of a liturgical culture in danger of being extinguished by the expansion of the Franco-Roman reform.

The notation of the Toledan codices should be interpreted within the historical-cultural framework that I have sketched above. As I have argued, their morphology does not offer definitive evidence upon which to base their dating. The Visigothic corpus of Toledo finds its place within a broad reforming movement of the Hispanic rite after the *Reconquista*, in a pro-Visigothic context that affects not only the musical codices but also an entire library of Visigothic culture that can be reconstructed from archives and ecclesiastical libraries.

SUSANA ZAPKE

BIBLIOGRAPHY

ANGLÈS 1938 : Anglès Higini, « La música medieval en Toledo hasta el siglo XI », in *Gesammelte Aufsätze zur Kulturgeschichte Spaniens*, vol. 7, Münster, Aschendorff, 1938, p. 1-68.

BROU, 1952: Brou Dom Louis, « Notes de paléographie musicale mozárabe », *Anuario Musical*, VII (1952), p. 51-76.

BROU & VIVES 1959 : Brou Dom Louis & Vives José, *Antifonario visigótico mozárabe de la catedral de León. Edición del texto, notas e índices*, Barcelona-Madrid, CSIC, 1959.

DÍAZ Y DÍAZ 1954 : Díaz y Díaz Manuel C., « Los prólogos del antiphonale visigothicum de la catedral de León (León, Arch. Cat. 8) », *Archivos Leoneses*, VIII (1954), p. 226-257.

DÍAZ Y DÍAZ 1972 : Díaz y Díaz Manuel C., « El códice visigótico de la Biblioteca Provincial de Toledo. Sus problemas literarios », in Thomas T. Buttner ed., *Homenaje a Antonio Tovar ofrecido por sus discípulos, colegas y amigos*, Madrid, Gredos, 1972, p. 105-114.

FÉROTIN 1904 : Férotin Marius, *Le Liber Ordinum en usage dans l'église wisigothique et mozárabe d'Espagne du cinquième au onzième siècle*, Paris, Firmin Didot, 1904.

FÉROTIN 1912 : Férotin Marius, *Le Liber Mozarabicus Sacramentorum et les manuscrits mozárabes*, reprint of the 1912 edition, Anthony Ward & Cuthbert Johnson eds., *Bibliotheca Ephemerides Liturgicae Subsidia* 78. *Instrumenta Liturgica Quarriensia*, 4, Rome, Edizioni Liturgiche, 1995.

FINCH 1966 : Finch Chauncey E., « Beneventan Writing in Codices Vat. Lat. 3032, 5951 and 7277 », *The American Journal of Philosophy*, LXXXVII (1966), p. 455-457.

Hispania Vetus 2007 : Hispania Vetus. *Musical-liturgical Manuscripts From Visigothic Origins to the Franco-Roman Transition (9th-12th centuries)*, Susana Zapke ed., Bilbao, Fundación BBVA, 2007.

HUGLO 1964 : Hugo Michel, « Liste complémentaire de manuscrits bénéventains », *Scriptorium*, XVIII (1964), p. 89-91.

JANINI, GONZÁLVEZ & MUNDÓ 1977 : Janini José, González Ramón, in collaboration with A. M. Mundó, *Catálogo de los manuscritos litúrgicos de la Catedral de Toledo*, Publicaciones del Instituto Provincial de Investigaciones y Estudios Toledanos, Serie 3. Estudios, catálogos, repertorios, Toledo, Diputación Provincial, 1977.

LOWE 1914 : Lowe Elias Avery, *The Beneventan Script. A History of the South Italian Minuscule*, Oxford, Clarendon, 1914.

MILLARES CARLO 1935 : Millares Carlo Agustín, *Los códices visigóticos de la catedral toledana: cuestiones cronológicas y de procedencia*, Madrid, Real Academia de la Historia, 1935.

MILLARES CARLO 1999 : Millares Carlo Agustín, *Corpus de códices visigóticos*, 2 vols., Las Palmas de Gran Canaria, Universidad de Educación a Distancia, 1999.

MUNDÓ 1965 : Mundó Anscari María, « La datación de códices visigóticos toledanos », *Hispania Sacra*, XVIII (1965), p. 1-25.

MUNDÓ 2007 : Mundó Anscari María, « Prólogo », in *Hispania Vetus* 2007, p. 14-21.

PINELL 1957 : Pinell Jorge, « El oficio hispano-visigótico », *Hispania Sacra*, X (1957), p. 335-427.

RANDEL 1969 : Randel Don Michael, *The Responsorial Psalm Tones for the Mozarabic Office*, Princeton, New Jersey, Princeton University Press, 1969.

ROJO & PRADO 1929 : Rojo Casiano & Prado Germán, *El Canto Mozárabe: estudio histórico-crítico de su antigüedad y estado actual*, Barcelona, Biblioteca de Cataluña, 1929.

SCHIAPARELLI 1927 : Schiaparelli Luigi, *Influenze straniere nella scrittura italiana dei secoli VIII e IX*, Studi e Testi, 47, Rome, Biblioteca Vaticana Apostolica, 1927.

TEJADA Y RAMIRO 1849 : Tejada y Ramiro José, *Colección de Cánones y de todos los concilios de la Iglesia Española*, II, Madrid, 1849.

WAGNER 1928 : Wagner Peter, « Der mozarabische Kirchengesang und seine Überlieferung », *Spanische Forschungen der Görresgesellschaft*, I (1928), p. 102-141.

ZAPKE 2007 : Zapke Susana, « Notation systems in the iberian peninsula », in *Hispania Vetus* 2007, p. 189-243.

ZAPKE 2008 : Zapke Susana, « The Visigothic Dream. The Hispanic rite in the Eras of Humanism and Enlightenment », *Goldberg Early Music Magazine*, LIII (2008), p. 66-73.

ZAPKE (forth.) : Zapke Susana, « Asimetría temporal: los renacimientos del mítico rito toledano y su valor identitario », in Thomas Deswarté ed., *Une liturgie en crise ? Le rit hispanique au XI^e siècle*, Collection Culture et société médiévales, Turnhout, Brepols (forthcoming).

Music writing styles in medieval Italy

THE EARLIEST SOURCES

The most important feature of Italian neumatic notations is the large number of different morphological traditions found on its territory.¹ The earliest examples are featured in some ninth-century manuscripts, usually as later additions to liturgical texts, particularly readings and prayers.² The problem of dating such material depends chiefly on their

1. Useful informations on different graphical details are contained in the descriptions of manuscripts and fragments compiled in BANNISTER 1913.

One of the first systematic classifications of Italian neumatic notation is in SUÑOL 1935. He proposed the following classification: primitive notation (e.g. Vat. lat. 4770; Vat. Ottob. lat. 177), Nonantolan, Novalicense, 'central' or 'Italian' or 'transitional' or 'Italo-Lombard' (i.e. Nota Romana), for the Milanese rite, Lombard or Beneventan, St Gall in Monza and Bobbio, Messine in Vercelli and Como, of Chartres in Ivrea, Aquitanian in Naples, Norman in Calabria and Sicily.

Bruno Stäblein (STÄBLEIN 1975) organizes a classification of the palaeographic material following similar criteria. Northern-Italian neumes: Novalicensi; Nonantolani, Bolognesi; I period (e.g. Verona, Bibl. Capitolare, CVII [100], Mantova, eleventh century; complete digital reproduction:

<[http://www.paolamasin.it/capitolare/codici/CVII\(105\)/index.html](http://www.paolamasin.it/capitolare/codici/CVII(105)/index.html)>; II period (Bologna, Bibl. Universitaria, 2748, Brescia, sec. XII), Vercelli, Bibl. Capitolare, CLXII, Vercelli, twelfth century) and Milanesi. - central-Italian neumes: I period (Vat. lat. 4770, tenth and eleventh century); II period (Pistoia, Bibl. Capitolare, C 119, Pistoia, eleventh and twelfth century; C 121, Pistoia, thirteenth century; Siena, Bibl. Comunale, F VI 15, twelfth century; Vat. lat. 5319, Roma, eleventh and twelfth century; Vat. lat. 6078, twelfth century). Southern-Italian neumes: first period (Bamberg, Staatsbibl., Patr. 101, tenth century; Benevento, Bibl. Capitolare, 38, eleventh century); second period (Napoli, Bibl. Nazionale, VI G 34, Troia, twelfth century). Solange Corbin (CORBIN 1977) proposes a classification, albeit provisional, starting from those notations which are already considered autonomous: Beneventan, central Italy, Nonantolan, Bolognese and Milanesi. Other distinctions are still uncertain: Ivrea close to Breton, Como close to Messine, Norman in Calabria and Sicily, Aquitanian and that of the Vercelli-Novalesa area.

Nancy Phillips (PHILLIPS 2000) distinguishes the following Italian neumatic families: Benevento, central Italy, northern Italy (St Gall; German, French, Metz and Breton notation; Bologna and Piacenza; Nonantola; Novalesa).

2. Some ninth century sources containing musical signs: Busto Arsizio, Bibl. Capitolare, M.I.14, fol. 11- (Evangelistary); Cividale, Museo Archeologico Nazionale, XXII, fols. 52-129 (Hagiography, Cividale); Heidelberg, Universitätsbibl., 3953 (362a/281) (Missal, northern Italy); Ivrea, Bibl. Capitolare, LX, fols. 1-2 (Tropes, Ivrea); Milan, Bibl. Ambrosiana, A 28 inf. and C 87 inf. (two Evangelistaries, Milan); Munich, Bayerische Staatsbibl., Clm 23281 (Missal, northern Italy); Nonantola, Arch. Storico Comunale, Famm. lit. 88 (*Passio* with *litterae*, Nonantola); Novara, Bibl. Capitolare S. Maria, LI (Homiliary); Verona, Bibl. Capitolare, LXXXII (Lectionary, Verona) and LXXXVI (Sacramentary, Verona: late Nonantolan neumes).

scarcity and relatively basic forms. In the case of the Italian notation found on some text as the famous eighth-ninth century *Bibbia Amiatina* (Firenze, Biblioteca Med. Laurenziana, Amiatino 1), for example, the notated songs were added at a much later stage and can be almost certainly dated to the eleventh century.³ The same issues related to the dating of the earliest sources also apply to tenth and eleventh century ones containing musical notation,⁴ in which varied contemporary graphical traditions are found alongside additions by later hands.⁵

A final preliminary observation: in the study of manuscript neumatic sources, predominantly in the case of fragments, it is not always possible to exactly evaluate the historical and liturgical value of any given source. A document can be a certain, trustworthy source, written in an established graphic tradition. However, it can also be the product of wandering scribes or untrained hands, whose testimony may then be mostly misleading. The complexity of these issues comes to light, for example, within a single, defined and geographically determined See, such as that of the Milan diocese.

Some photographic reproductions can be found in BAROFFIO, DODA & TIBALDI 1998; BAROFFIO 2009. See also CROCHU & GATTÉ.

3. FLEISCHER 1897, p. 1-15. Fleischer's hypothesis was contested by WAGNER 1905, p. 66-67, n. 2. A reply can be found in FLEISCHER 1923, p. 134-137. See LUDWIG 1971, p. 127. For the tenth and eleventh century, BAROFFIO 2000.

4. Some tenth- and eleventh-century manuscripts and fragments with musical notation: Assisi, Bibl. Centro Documentazione Francescana, 574 (Gradual, eleventh century, *palimpsest*); Bamberg, Staatsbibl., Fragmentenmappe IX A 2 (Missal); Benevento, Bibl. Capitolare, Framm. F (Missal, tenth-eleventh century); Bologna, Arch. di Stato, raccolta di mss., Busta 1 (Lectionary); Brescia, Bibl. Civ. Queriniana, H.VI.21 (Psalter-Hymnary, Brescia S. Giulia); Chiusi della Verna, Bibl. Santuario, 6 (Pontifical); Ivrea, Bibl. Capitolare, LXXIX, fol. 43^v; XCVII, flyleaf (Missal, northern Italy); Klosterneuburg, Stiftsbibl., 580 (Gradual, Bologna); Kotor, Franjevacki samostan, Sv. Klare s.s. (Antiphonary); Manchester, John Rylands Libr., 2 (Exultet); Mantova, Bibl. Comunale Teresiana, 295 (C.I.33), fols. 97-104 (eleventh century); Milan, Arch. di Stato, Notarile, 36718; Bibl. Ambrosiana, A 24 inf. (Sacramentary-Lectionary, Lodrino); A 24 bis inf. (Sacramentary-Lectionary, Biasca); A 208 inf. (Missal, Nonantolan notation); E 49 sup., flyleaf (Gradual, Beneventan area); L 77 sup., 15-172 (Gradual, northern Italy, Germanic notation); S 37 sup., fol. guardia; Monza, Bibl. Capitolare, a-25/37 (Gradual, Nonantolan notation); Bibl. Capitolo Metropolitan, II.D.3.3 (Sacramentary-Lectionary, Milano S. Simpliciano); Modena, Arch. Capitolare, O.I.4, fols. 154^v-155^r (Song of the Watchmen of Modena); Arch. di Stato, Busta 13, 1 (Hymn, Ivrea); Montecassino, Arch. Badia, 271, fol. 17 (Missal); Monteprandone, Museo Civico, M 8 (*palimpsest*); Monza, Bibl. Capitolare, d-7/93 (Epistolary Evangelistary, Monza); f-2/102 (Sacramentary-Lectionary, Venegono); Orvieto, Arch. di Stato, Perg. di ricupero 157 (Lectionary for the Office, Orvieto Ss. Severo e Martino); Oslo, Coll. M. Schøyen, 1665 (Antiphonary, Toscana); Paris, Bibl. Mazarine, 525 (Ritual-Missal, Asti); Pavia, Bibl. Seminario, s.s. (Breton-Pavian notation); Roma, Bibl. Casanatense, 167 (Antiphonary, Monte Amiata, *palimpsest*); 724.1 (Pontifical, Benevento); 724.2 (Benedictional, Benevento); San Pietroburgo, Ist. Storia Russa, Koll. 47, 622/16 (Missal, northern Italy); Koll. 47, 622/29 (Missal, central Italy); RNB, lat. F.v.I.142 (Missal, central Italy); Solesmes, Abbaye Saint-Pierre, Pal. G 31-34 (Gradual, Piedmont); Subiaco, Bibl. S. Scolastica, CLX, fols. 169-173 (Office for the Dead); Torino, Bibl. Nazionale Universitaria, D.4.20 (*palimpsest*); D.5.3, fols. 139^v and 171^v (Antiphonary, Piedmont); G.VII.18, fol. 71 (Hymns, Bobbio); Vatican City, Bibl. Ap. Vaticana, Barb. lat. 421 (XI 64) (Libro del capitolo, Rieti); Chigi C VI 177 (Psalter-Hymnary, Farfa/Subiaco, eleventh - twelfth century); Ottob. lat. 79; Reg. lat. 195, fol. 23^r (Kyrie, Como); Vat. gr. 242, fols. 57 and 60 (Antiphonary, Nonantola, *palimpsest*); Vat. lat. 3741 (Gospels, Montecassino); Vat. lat. 7172 (Hymnary, Narni, tenth or eleventh century); 9820 (Exultet, Benevento S. Pietro *extra muros*); Verona, Bibl. Capitolare, XL (eleventh century); CV (Verona, eleventh century); Turin, Bibl. Reale, Varia 1 (Novalesa area, eleventh or twelfth century).

5. See the eleventh- and twelfth-century additions made in Novalesa on Berlin, Staatsbibliothek, Hamilton 4.

FOREIGN INFLUENCES

Tenth- and eleventh-century Italian neumatic sources feature predominantly Frankish and German influences.⁶

Frankish influence

The Frankish influence in northern Italy remained active until well into the eleventh century and in some areas, where the local production was undertaken either by Frankish scribes or Italian ones copying from Frankish models, it lingered until the early thirteenth century.⁷ However, the largest area with a consistent tradition is, in fact, southern Italy and Sicily, where the Norman domination secured a homogenous spread of the northern-French notational kin.⁸ Some Frankish influences can also be traced in the book production of some Cluniac (William of Dijon/Volpiano) and Cistercian foundations as well as other considerable graphic imports owing to the presence of Frankish foundations, which radiate their culture out onto a vast territory. The most evident example is that of the notation from the Como Lake area, whose long existence also resulted in a second hybrid phase. A type of notation close to Breton models is found in Ivrea and Pavia, as shown in figure 1.⁹

The origin for this influence can be traced in the establishment of a Breton graphic tradition in Pavia and Ivrea. The prominent ecclesiastic figures related to this are Lanfranc of Pavia and Anselm of Aosta, who were later active in Normandy (Bec) and England (Canterbury).¹⁰

German influence

The presence of a German, mainly Swiss (St Gall), influence is found in many local notational traditions throughout northern Italy. In the far west (Aosta Valley¹¹), as shown in figure 2 and in the centre (Monza and the Valtellina in Lombardy, Bobbio in Emilia¹²), as

6. How rich a notational tradition can be with the co-existence and entwining of different graphic traditions, such as Frankish and German, is evident in areas such as the territory surrounding Como, a crossroad of different cultures. See especially the overall picture of the Como tradition as traced by some fragments found and catalogued by RAINOLDI & PEZZOLA 2002. A similar mixture of notational traditions is perhaps also found in Pavia, as shown by some neumatic fragments studied in ALBIERO 2009.

7. We should not dismiss the problem especially when looking at other 'border' sources. For example, concerning the fragment of a late tenth-century Missal discovered by Leandra Scappaticci in Apricale (Ventimiglia), Arch. Storico Comunale; was it notated by an Italian scribe following a French model or is it the remainder of a French source that reached Italy after its compilation?

8. See David Hiley's chapter on Norman notations in this volume.

9. For Ivrea LX see DOWNEY 1994; DOWNEY 1998; GALLI 1998 with a table for the neumes on p. 293-299. For Ivrea CVI, see SIEKERKA 2009.

There is no doubt that the Gradual LX and the Antiphonary CVI in Ivrea were copied for this centre. Nevertheless, it is still difficult to reconstruct the manuscripts' precise editorial context: were they written in Ivrea by a local scribe or by someone who was trained in Pavia? Were they copied in Pavia following indications by the Ivrean clergy? Are they perhaps the remains of an old western-French notation surviving in the Breton area but once spread as far as northern Italy? Surely, in subsequent centuries Pavia was a centre where the book production, even if it did not reach Bologna's fourteenth and fifteenth century high standards, supplied other Piedmont sees like Acqui and Intra.

10. For the Breton notation, see in this volume the chapter by Jean-Luc Deuffic.

11. Some photographic reproductions can be found in *Codices* 1993.

12. For the graphic tradition in Bobbio, see SCAPPATICCI 2008.

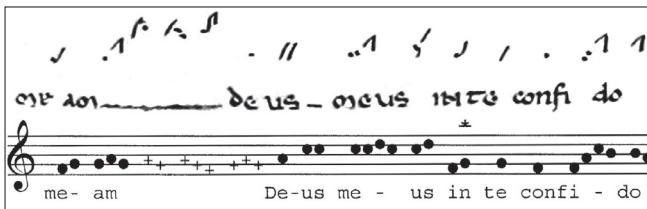


Figure 1. Introit *Ad te levavi con caudae* in Ivrea, Bibl. Capitolare, LX, fol. 3^r (Ivrea, 11th century).

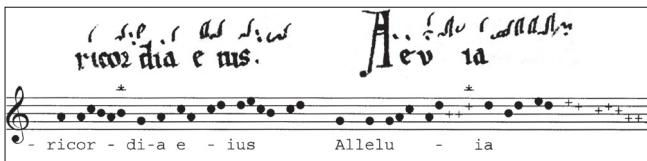


Figure 2. Gradual *Haec dies* and Alleluia *Pascha nostrum* in Aosta, Bibl. Seminario, 71, fol. 10^{va} (Cormayeur?, 12th century).

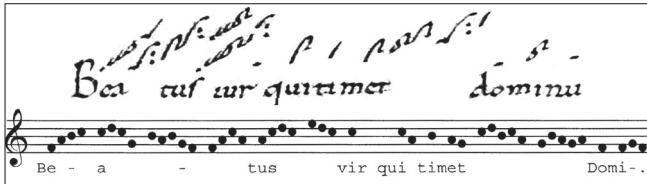


Figure 3. Alleluia *Beatus vir qui timet* in Monza, Bibl. Capitolare, c-12/75, fol. 81^r (Monza, 11th century).



Figure 4. The introit *Puer natus* in Monza, Bibl. Capitolare, c-12/76, fol. 17^r (Monza, 11th century).

shown in figures 3-4, Germanic notations persisted until the early thirteenth century, at which point they were replaced by Italian or Frankish scripts.

In centre-eastern Italy (south Tirol and Friuli), the Germanic influence is even more evident and the Transalpine authority lasted for a longer time span, as shown in figures 5-7.

In Brixen (Bressanone) and Innichen (San Candido), German Gothic neumes (so-called 'Hufnagel') overtook the old graphic tradition before they would in turn be replaced by square notation.¹³

13. Some Italian sources containing Germanic notation include the following.

For Valle d'Aosta: Aosta, Arch. Storico Regionale, 7 (Missal, Brusson, end of the eleventh century); Bibl. Seminario, 2 (Antiphonary, twelfth century); 5 (A), fols. 1-7 (Missal, Sion, Charvensod?, beginning of the twelfth century); 5 (B), fols. 8-68 (Missal, Aosta Valley-Charvensod, first half of the twelfth century: see FREZET 2001); 71 (Missal, Cormayeur?, thirteenth century).

For Piedmont: Cuneo, Arch. di Stato, Uff. M. T. Savigiano: numerosi frammenti di un messale, Valle d'Aosta?, eleventh-twelfth century; Ivrea, Bibl. Capitolare, XCII (94), fasc. V, 10-13 (fragment of a Missal, twelfth century); XCVII (51), flyleaf (fragment of a Missal, tenth-eleventh century).

Figure 5. Gradual *Universi vers. Vias tuas* in Bressanone/Brixen, Bibl. Studio Teologico, B 22, fol. 8^v (12th century).

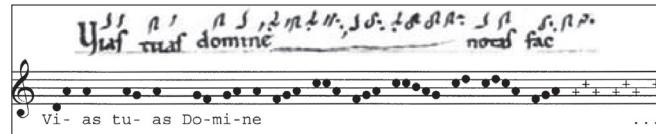


Figure 6. Alleluia *Maria hec est* in Bressanone/Brixen, Bibl. Studio Teologico, B 22, fol. 7^r (later additions, Bressanone, 13th century).



Figure 7. Antiphon *Interrogatus a Iudeis* in San Candido/Innichen, Museo, frammento s.s. (Alto Adige, 15th century).



For Monza: Monza, Bibl. Capitolare, c-12/75 (Gradual Antiphonary, eleventh beginning of the eleventh century; see BRAMATI FERRARI, 1979); c-13/76 (Gradual, eleventh century).

For Valtellina: Chiavenna, Arch. Parrocchia S. Lorenzo, Pergamene, Cerfoglia 1 (fragment of a gradual, sec. xi); Oxford, Bodleian Libr., Canon. Lit. 202 (Antiphonary ..., Sondrio, twelfth-thirteenth century); Sondrio, Arch. di Stato, Romegialli 142 (fragment of a Breviary, eleventh-twelfth century);

For Bobbio: Milan, Bibl. Ambrosiana, D 84 inf. [S.P. 10/27 bis] (Missal, tenth-eleventh century); L 77 sup., fols. 15-172 (Missal, tenth century); Turin, Bibl. Nazionale Universitaria, F.I.4, fol. 345^v (Antiphonary, second half of the twelfth century); F.IV.1.12 (fragment of a Gradual, tenth-eleventh century); G.V.20 (Gradual, beginning of the eleventh century); Vatican, Bibl. Apostolica Vaticana, Vat. lat. 5749, fol. 128^v (Missal, tenth century).

For Trentino: Alto Adige: Bolzano, Arch. di Stato, Fassia 4E (fragment of a Gradual, twelfth-thirteenth century); Museo civico, 1304 (662) (Missal, 1296: see GOZZI 2003); Bressanone/Brixen, Bibl. Studio Teologico Accademico, A 9 (9) (Missal, Tuber/Taufers, thirteenth century); B 22 (già 67) (Missal, Cornale/Karnol?, twelfth century); Museo Hofburg (Gradual); Vinzentinum, Tresor, C 1 (ms. Parschalk) (Missal, Italy?, second half of the eleventh century); Innsbruck, Univeritätsbibl., 277 (Missal, Sonnenberg?, twelfth-thirteenth century); 484, fol. 59^v and fol. 215^r (Evangelary, Lake Constance area, San Candido, add., eleventh century); Munich, Bayerische Staatsbibl., Clm 17019 (Missal, Bressanone, twelfth century); Novacella/Neustift, Bibl. Abbazia, s.s. (fragment of an Antiphonary, twelfth century); Oxford, Bodleian Libr., Canon. Lit. 341 (Gradual, San Candido/Innichen, 1180 ca.); San Candido/Innichen, Bibl. Museo Collegiata, vari frammenti, s.s. (twelfth-fourteenth century); Tirolo, Museo Castel Tirolo, inv. 50218529 [olim 60] (Calendar-Gradual-Kyriale-Proser-Sacramentary, southern Germany?, eleventh and twelfth century: see SETTE 2007); Trento, Castello del Buonconsiglio. Monumenti e collezioni provinciali, ms. 1587/a [già 1546] ('Udalriciano' Sacramentary, mid-eleventh century); Vienna, Deutsches Ordens Zentralarchiv, 389 (Missal, Auna di Sotto/Unterinn, end of the twelfth century); Österreichische Nationalbibl., Ser. Nova 206 (Sacramentary-Sequentiary, Trent, twelfth century). See ENGELS 2001, and GOZZI 2001.



Figure 8. Tract *Domine audivi* vers. *In quo dum* in Vercelli, Bibl. Capitolare, CXXIV, fol. 93^r (Eastern Piedmont/Lombardy, 11th century).

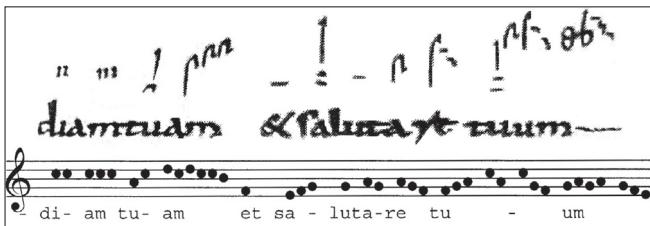


Figure 9. Offertory *Benedixisti verso Ostende* in Oxford, Bodleian Libr., Douce 222 (Novalesa, 11th century).

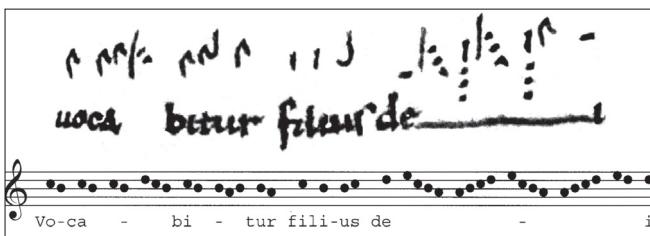


Figure 10. Offertory *Ave Maria* vers. *Ideoque quod nascetur* in Rome, Bibl. Casanatense, 3830, fol. 3 (Novalesa?, 11th century).

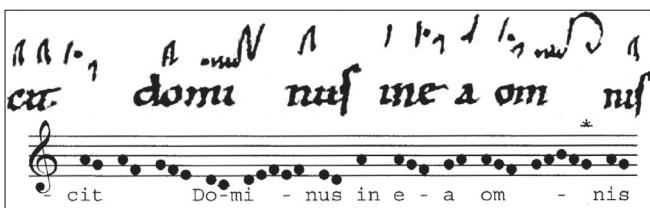


Figure 11. Responso *Domus mea* in Berlin, Deutsche Staatsbibl., Hamilton 4, fol. 2^v (Novalesa, 12th century).

All this shows how important is to be aware that musical notation reveals not only the political relationships between different monastic centres but also the extent of different geographic areas and their lay, as well as ecclesiastical jurisdictions.

For Friuli: Cividale, Museo Archeologico Nazionale, XCI (Breviary, Cividale, twelfth-thirteenth century); XCIII, (Breviary, Cividale, mid-twelfth century); Gorizia, Bibl. Seminario teologico, s.s. (Bible, Aquileia?, thirteenth century); Modena, Bibl. Estense Universitaria, Lat. 764 [alfa.G.8.9], fols. 1-138 (Missal, end of the twelfth century); Oxford, Bodleian Libr., Canon. Lit. 346 (Breviary, San Gallo di Moggio, 1228); Pieve di Cadore, Arch. Magnifica Comunità, s.s. (fragment of a Missal, second half of the twelfth century); Udine, Arch. di Stato, Framm. 37 (Ritual, Aquileia, second half of the twelfth century). On the graphic traditions in Friuli, see PRESSACCO & ZERBINATTI 1985 and CAMILOT-Oswald 1997.

NORTHERN ITALY

The most interesting graphic phenomena are associated with important episcopal and monastic centres. The principal areas in which a neumatic tradition developed most vigorously were Piedmont,¹⁴ Lombardy and Emilia-Romagna.¹⁵

Piedmont

The provenance of a palimpsest fragment has recently been identified as Turin, and its great importance relies on the traces of liturgy and notation it contains.¹⁶ Its relationships with other Piedmont sources, such as the Missal Vercelli CXXIV (see fig. 8) and the liturgy of Novalesa, is confirmed by the textual and musical scripts.¹⁷

Novalesa is a Benedictine abbey strategically located on the route to the Moncenisio Pass; this geographical position allowed important scribal communications with the Frankish notational tradition, which can be traced in liturgical texts (e.g. in the *Santorale*) and to some extent also in the Novalesa neumatic notation. The most characteristic neumes of the Novalesa notation are the *torculus*, in the form of the Arabic numeral 8 (or of the Greek letter *theta*),¹⁸ and the *climacus* with a stair-like right descender, as seen in figures 9-11.

During the twentieth century, the Novalesa (*novalicense*) notation was deemed to have been confined to the abbey near Susa. However, the musical notation contained in a processional from the late eleventh century, written for the use of Asti, confirms that Novalesa neumes had a much broader influence on the territory.¹⁹ Moreover, it is worth mentioning the relationship between Catalonia and Piedmont, which share not only the shapes of certain neumes but also architectural and artistic features: the structure of certain Romanesque churches and mural paintings (now in Barcelona) show the coexistence of the same models in the Pyrenean area and the Susa valley.²⁰ Novalesa, as revealed by a partially neumed source, developed its particular notational tradition in the twelfth centuries, mixing various graphical legacies.²¹

Another notational family was established in the area around Vercelli, shown in figures 12-16; it reached as far as Casale Monferrato.²² The Novara area also developed its own tradition

14. On the musical sources of Cuneo province, see PONZIO 2009.

15. Many fragments featuring unique morphologies still remain unstudied, for example those coming from two Missals of the eleventh century, now in Alba, Arch. Capitolare e a Bra, Bibl. Civica, s.s. (both made known by Prof. Marco Buccolo, Alba).

16. See COLETTE 1997; CAZAUX-KOWALSKI 2006.

17. The provenance of the Missal can be identified as the area Arona-Breme-Pavia. Some sources for the Novalesa notation: Oxford, Bodleian Libr., Douce 222 (Troper, eleventh century); Rome, Bibl. Casanatense, 3830 (Troper, end of the eleventh century); Turin, Bibl. Reale, Varia 1 (Gradual-Troper, twelfth century).

18. See RAGAINI 1995.

19. Asti, Bibl. Capitolare, 1 (Processional, Asti, eleventh-twelfth century).

20. See GRABAR 1958, p. 209. On the relationships between Italy and Spain, see GONZALEZ-BARRIONUEVO 1995, p. 100-101.

21. The musical additions in the manuscript Berlin, Deutsche Staatsbibl., Hamilton 4 are many, mostly *addenda* by different eleventh- and twelfth-century hands.

22. Some sources for the Vercellese notation are: Monza, Bibl. Capitolare, f.3/104 (Missal, Casale Monferrato, sec. XIIex); Vercelli, Bibl. Capitolare, CXLVI (Gradual, Vercelli, beginning of the twelfth century), CLXI (Gradual, Vercelli, end of the eleventh century), CLXII (Gradual, Vercelli, twelfth century), fragment 40 (Antiphonary, tenth-eleventh century). See MASCARI 1998, table of the neumes for mss. CXLVI, CLXI e CLXII on p. 22-26. Some new sources are related in BRUSA 2009.

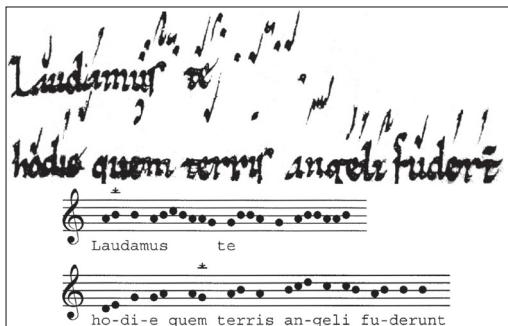


Figure 12. Gloria Trope *Pax sempiterna* in Vercelli, Bibl. Capitolare, LXII, fol. 292^r (Vercelli, 10-11th century).

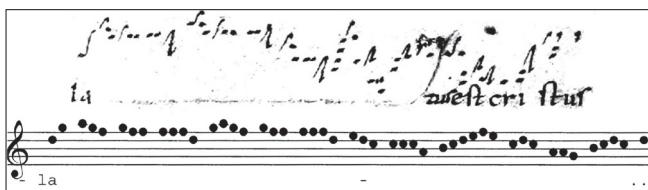


Figure 13. Alleluia *Pascha nostrum* in Vercelli, Bibl. Capitolare, CXLVI, fol. 59^v (Vercelli, 11th century).



Figure 14. Gradual *Viderunt verso notum* in Vercelli, Bibl. Capitolare, CLXI, fol. 8 (Vercelli, 11th century).

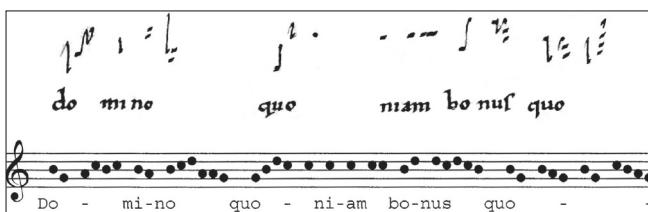


Figure 15. Alleluia *Confitemini Domino* in Vercelli, Bibl. Capitolare, CLXII, fol. 102^r (Vercelli, 11th century).



Figure 16. Introit *Puer natus* in Monza, Bibl. Capitolare, f-3/104 (Casale Monferrato, 12th century).

of which some eleventh century sources survive.²³ Furthermore, a Tropary-Sequentiary-Processional dated to the first half of the twelfth century contains rare liturgical and literary forms, such as chants for the welcoming of a bishop.²⁴ The most characteristic neume of the Novarese notation is the *torculus* with a sinuous and light stroke, as shown in figure 17.

23. Some sources for the Novarese notation: Milan, Arch. di Stato, coperta Notarile 18527 (fragment of an Antiphonary, first half of the twelfth century), Notarile 27304 (fragment of an Antiphonary, second half of the eleventh century); Novara, Arch. Storico Diocesano, G 1 (fragment of a Gradual, second half of the eleventh century); Paris, Musée de Cluny, 22653 (Evangelary, twelfth century); Verbania/Intra, Bibl. Capitolare S. Vittore, 16* (Gradual, Intra, second half of the twelfth century); Verbania/Pallanza, Arch. di Stato, Framm. Restauro 1986, 6/4 (fragment of an Antiphonary, twelfth century).

24. Verbania/Intra, Bibl. Capitolare di S. Vittore, 5.

Figure 17. *Gloria in Verbania/Intra*, Bibl. Capitolare S. Vittore, 5 (14), fol. 3^v (Tropary-Sequentiary, Intra, 12th century).



Figure 18. Gradual *Exaltabo te Domine* in Monza, Bibl. Capitolare, c-14/77, fol. 65^r (Lombardy [Monza-Milan], 13th century).



Figure 19. Gradual *Omnis de Saba* in Padua, Bibl. Seminario, 697, fol. 14^r (Padua, 11th century).

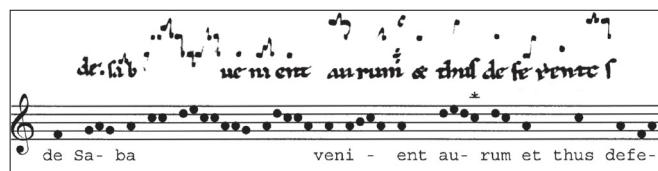


Figure 20. Psalm *Respice de cælo* in Milan, Bibl. del Capitolo metropolitano, II.F.1.1, fol. 114^r (Milan Duomo, 14-15th century).



Lombardy

An intense musical activity characterised the city of Milan and its diocese where a particular rite, the Ambrosian, was established.²⁵ The earliest example of Ambrosian notation consists of some neumes found in a tenth/eleventh-century manuscript, and the earliest complete liturgical books date to the beginning of the twelfth century.²⁶ There are, however, some palaeographical clues which suggest the existence of complete chant books in Milan in the mid-eleventh century.²⁷ During the twelfth and thirteenth centuries, in Milan, as well as other areas in Lombardy, began to take shape a notation characterised

25. Important centres for their notational traditions are the Lombard Cistercian abbeys, which also show similarities with local and French morphologies. See the observations on the *clivis* featured in the Epistolar (MS 48) and the Missal (MS 55) of Morimondo (Milan) in PARKES 1979, p. 226 and 252. The same applies to a Missal from the same abbey now in Cambridge, Univ. Libr., Add. 6667.

26. The manuscript is dated between 870 and 890 by Natale Ghiglione. See GHIGLIONE 2009, p. 9.

27. See BAILEY 2008. The flyleaf of ms. Vaticano Ottob. lat. 3 – which, it seems to me, is more likely a layout/*mise en page* trial than the relic of an Antiphonary – contains parts of the Ambrosian rite in Beneventan textual and musical script. In it is found the *climacus* with the first two notes ligated (as it is in Milan and Rome), whereas in every source from the Cassinese-Beneventan area each note of the *climacus* is separated.

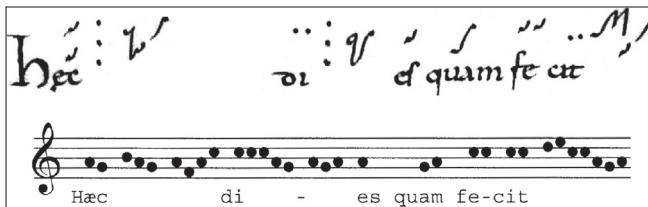


Figure 21. Gradual *Hæc dies* in Vercelli, Bibl. Capitolare, CLXXXVI, fol. 116^r (church dedicated to S. Vittore in the diocese of Como, 12th century).

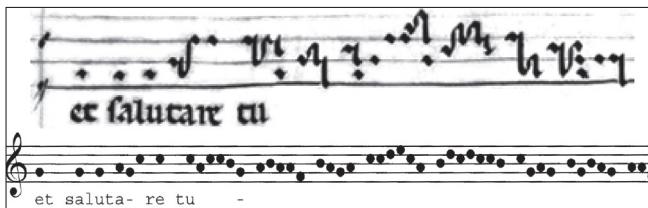


Figure 22. Alleluia *Ostende nobis* in Verbania/Intra, Bibl. Capitolare S. Vittore, 10, fol. 2^r (Como, 14th century).

by points joined by fine lines.²⁸ Later, this notation evolved into the Lombard Gothic notation with the diamond or rhomb as its principal shape, as shown in figures 18-20; this particular feature distinguishes Ambrosian chant books from Roman ones and adds to the already wide repertory of Italian square notations.²⁹

The earliest sources from Monza, an important hub on the North-South route, feature a local tradition enriched with Germanic (St Gall) elements.³⁰ In the city of Como, a few kilometres far Monza, there developed an Italian variant of Messine notation.³¹ The main graphical difference between the Comasca and the Messine notation is in the shape of the *uncinus*.³² In the former, it resembles a sickle, as shown in figures 21-22.

28. In Monza, for example, Bibl. Capitolare, c-14/77 (Gradual, twelfth century). A variant of the joined-points notation is found in a Paduan Gradual now in Padua, Bibl. Seminario, 697.

29. On the possible influence of the diamond-shaped Milanese notation in middle-eastern Europe, see n. 33 below. For the Milanese notational tradition the study by HUGLO 1956 is still fundamental.

30. Monza, Bibl. Capitolare, c-12/75 (Gradual Antiphonary, beginning of the eleventh century), c-13/76 (Gradual, second half of the eleventh century).

31. Not far from the Como Lake, near Lecco, is the abbey of San Pietro sopra Civate with a notation showing strong French influences, although not Messine. See the reproduction of the chants in TENTORI 1994.

32. Some sources for the old Comasca notation of Messine influence: Chiavenna, Tesoro Parrocchia S. Lorenzo, s.s. (Antiphonary, eleventh century); Milan, Bibl. Ambrosiana, E 68 sup. (Gradual, eleventh century); Rome, Bibl. Nazionale, 2116 [Sess. 136] (Ritual Missal, Como S. Abbondio, eleventh century); Vercelli, Bibl. Capitolare, CLXXXVI (Gradual, eleventh and twelfth century: see CEREGHETTI 2006). Some of the many fragments: Chiavenna, Arch. Parrocchia S. Lorenzo, s.s. (Antiphonary, eleventh century); Como, Arch. Parrocchiale S. Fedele, s.s. (Antiphonary, twelfth century); Grosio, Bibl. Comunale Visconti Venosta, E.5. 16 legatura (Antiphonary, eleventh and twelfth century); Lugano, Coll. Giovanni Conti, s.s. (Antiphonary, eleventh century); Mantello, Coll. Privata, s.s. (Antiphonary, twelfth and thirteenth century); Milan, Arch. di Stato, coperta Notarile 12329, 15355, 24036 (Missal, eleventh and twelfth century), Bibl. Ambrosiana, E 72 inf, flyleaf (Missal); Montecassino, Arch. della Badia, 494 (Office for s. Remigio, eleventh century); Novara, Arch. di Stato, già coperta del Carteggio 146 del Notaio Giovanni Preti, anni 1523-1525/30 + Arch. Storico Diocesano, M ('Missal of Boccioleto', second half of the eleventh century); Pavia, Arch. di Stato, Frammenti 1958 Sc. 2 Cart. 30 (Missal, first half of the eleventh century); Sondrio, Arch. di Stato, Perg. sciolte, s.s. (Antiphonary, eleventh and twelfth century); Varallo Sesia, Bibl. Civica Farinone-Centa, s.s. (Gradual, Como, thirteenth century 1); Vatican, Bibl. Apostolica Vaticana, Regin. lat. 195 (Kyriale, tenth and eleventh century), Regin. lat. 1987 (Marziano Cappella, twelfth century); Vat. lat. 3307, fols. 10, 12, 13, 15, 19 (palimpsest); Vendrogno, Arch. Parrocchiale, s.s. (twelfth century). A new fragment was edited by CONTI 2003.

During the thirteenth century, the early Comasca notation was influenced by the Milanese tradition, resulting in a second hybrid type.³³

Some evidence still survives of the local tradition in Brescia, whose links to the nearby city of Verona become evident in the reading of eleventh- and thirteenth-century sources.³⁴ One of the most interesting eleventh-century Italian liturgical books was produced in Mantua, a city which, like Brescia, was also linked to the Veronese production. The hub of musical and liturgical confluences in the Mantuan area was the Benedictine abbey of San Benedetto in Polirone. This centre also contributed to the variety of Italian notational traditions while being influenced by Cluniac models in the creation of its liturgical book. The few remaining eleventh-century fragments of the Polirone notation follow northern-Italian models, e.g. in the shape for the *torculus*, which resembles the Arabic numeral 5.³⁵

Verona

Most of the original material from Verona remained inside the city walls; the analysis of these notations reveals the coexistence of two different traditions in the same *scriptorium*, and sometimes even in the same book: the Veronese and the Nonantolan.³⁶

33. In this context it is worth mentioning Hugo's opinion that the diamond-shaped Milanese notation might have influenced some scribes in Regensburg, Praha, and even as far as Poland, with a related influence along of Lombard features in middle-eastern Europe. See HUGLO 1990, p. 248. Some sources for the late Comasca notation: Bologna, Bibl. Universitaria, 339 (Breviary, fourteenth and fifteenth century); Verbania/Intra, Bibl. Capitolare S. Vittore, 10 (3) (Gradual, first half of the fourteenth century); Vendrogo, Arch. Parrocchiale, B, last page (Ambrosian Gloria, addition, end of the fourteenth century).

34. Some sources of the graphical tradition in Brescia: Bergamo, Bibl. Civica A. Mai, MA 150 (Gradual, twelfth century 1), MA 239 (già Γ.III.18) (Gradual, second half of the eleventh century); Bologna, Bibl. Universitaria, 2493, fols. 145-152 (Hymnary, twelfth and thirteenth century), 2535, fols. 233^r-240^v (Antiphonary, twelfth and thirteenth century), 2551 (Processional ..., end of the thirteenth century), 2748 (già S. Salvatore 716) (Troper, eleventh and twelfth century); Brescia, Bibl. Civica Queriniana, B.II.12 (fragment of a Gradual, eleventh century), G.VI.7 (necrology with additions, Brescia S. Salvatore, eleventh and twelfth century), H.VI.21, fols. 23^{rv} and 46^v (Hymns, Brescia S. Giulia, first half of the eleventh century); Museo Diocesano, Codici miniati, Cap. 13 (Antiphonary with tropes, second half of the twelfth century); Oxford, Bodleian Libr., Canon. Lit. 366, fols. 1-36 (Gradual, eleventh century), Canon. Lit. 366, fols. 39-257 (Breviary, beginning of the twelfth century), Toledo, Bibl. Catedral, 39.3 (Sacramentary, Brescia, Tirano S. Maria, twelfth and thirteenth centuries).

35. See Giovanni VARELLI 2008.

36. Verona, Arch. di Stato, Malaspina Musica 70 (fragment of a Breviary OSB, twelfth century); Verona, Bibl. Capitolare, XVI, fols. 229^r (*probatio pennae?*, eleventh century), XXXVI (34), fols. 1^v and 2^v (antiphons, beginning of the eleventh century), XXXVIII (36) (readings, ninth century?), XL (palimpsest, tenth century), LXIX (66), fol. guardia (fol. 65^r) (Alleluia), LXXXII (Lectionary for the Mass, ninth century), LXXXVI (81) (Sacramentary + chants incipits, tenth and eleventh century, Nonantolan and Veronese notation), LXXXVII, addenda (tenth century, Nonantolan and Veronese notation), LXXXVIII (83) (Office for St John the Evangelist, eleventh century), XCIV (Liber ordinarius 'Carpsum', Verona Duomo, mid-eleventh century, Nonantolan notation), XCIV (92) (Antiphonary, Verona, eleventh century, alphabetic, Nonantolan and Veronese notation), CII (Missal, eleventh and twelfth century), CIII (Antiphonary-Hymnary, twelfth and thirteenth century), CIV (palimpsest fragment of an Antiphonary, eleventh century, Nonantolana notation), CV (98) (Missal, eleventh and twelfth century, Nonantolana and Veronese notation), CVIII (Psalter, Hymnary, second half of the twelfth century), CIX (102) (Hymnary, eleventh and twelfth century), CIX, fol. 72^v (hymn, twelfth century). The Breviary Fonte Avellana, Eremo S. Croce, Nn (twelfth century) also contains both Ravennate notation and Nota Romana.



Figure 23. Gradual *Ne avertas faciem* in Monza, Bibl. Capitolare, b-1/41, fol. II' (Nonantola?, 11th century).



Figure 24. Introit *Ne derelinquas me* in Bologna, Museo Internazionale, Q 10/10 (Nonantola?, 11th century).



Figure 25. Gradual *Justus ut palma* in Nonantola, Museo, Cantatorio, fol. 85^r (Nonantola, 11-12th century).

Emilia-Romagna

The peculiarity of the Nonantolan neumes to have no evident relationship with Germanic notations, is a trademark in a range of northern-Italian notations.³⁷ The Nonantolan notation is characterized by vertical lines (leaning to the right in the earliest sources) that begin with the pitch of the first note to be sung and end at the final one, giving the exact pitches in the interlinear space. Used mainly in the Longobard monastic foundation of San Silvestro in Nonantola (diocese of Modena), Nonantolan notation is also found in certain other sources – whose exact origin is unknown or uncertain – now kept in Verona.³⁸ One should not exclude the possibility of an even broader diffusion throughout the Po valley (Padania), especially on account of a relic of Gallic *melodiae secundae* (melismas) for the Alleluia *Video caelos apertos* as shown in figures 23-25.

The area north-West of Nonantola includes some important Episcopal sees like Parma, Reggio Emilia and Modena, comprising the far northern area of the spreading of the *Nota Romana* described further below.³⁹

37. Giuseppe Vecchi stated the genetic autonomy of Nonantolan notation, as opposed to Ugo Sesini's hypothesis of its dependence from Messine notation. See VECCHI 1953, p. 331, and SESINI 1942. In turn, JAMMERS 1965, p. 51, considers Nonantolan notation to be derived from Aquitanian.

38. To the twenty-two sources made known by MODERINI 1970, p. 52-81, may be added the following: Bombiana (già?), Arch. Parrocchiale (Antiphonary of which I own a photograph given to me by Oscar Mischiati); Monza, Bibl. Capitolare, a-25/37, fol. I post. (*membra disiecta* of a Gradual), c-1/61, fols. 205-218; h-1/116 (*passim*), h-9/164, fol. 194; München, Universitätsbibl. Cod. ms. 2° 126, binding (Antiphonary); Nonantola, Arch. Storico Abbaziale, Framm. Cod. Pergam. 22 (Gradual); Arch. Storico Comunale, Framm. 30 (Troper-Sequentiary); Philadelphia, Free Library, Lewis E 15, fol. front flyleaf (Missal); Vatican City, Bibl. Ap. Vaticana, gr. 342, fols. 57 and 60 (single original palimpsest and folded leaf of an Antiphonary); Vercelli, Bibl. Capitolare, CLVI. BISCHOFF 2004, nr. 3767, points out Nonantolan neumes in Oxford, Bodleian Libr., Add. C. 152, fol. 306v.

39. On a collection of neumatic sources see MARTINELLI 1977.

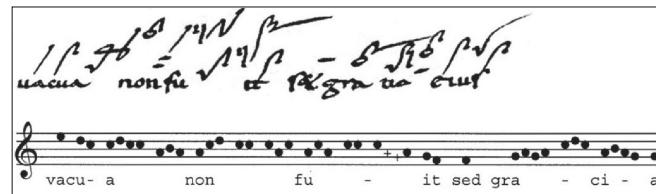


Figure 26. Gradual *Qui operatus* in Modena, Arch. Capitolare, O.I.13, fol. B^r (11th century).

Continuing our journey through the musical notations in Padania, we now move to the capital city of Emilia-Romagna.

Bolognese notation has attracted the interest of many scholars, primarily because of the attractiveness of its oldest and most complete source: a Gradual written around 1039 for the use of the Bologna Cathedral.⁴⁰ Bolognese notation extends throughout the whole of Emilia, reaching into Romagna and Toscana (fig. 26).

The refined stroke of this notation, rich with graphic nuance, draws on foreign models from the tenth and eleventh centuries, making the study of this source remarkably intriguing.⁴¹

Until the beginning of the twelfth century, the area under the jurisdiction of the Ravenna Church comprised a large territory in northern Italy extending to Piacenza in the west, and central Marche in the south.⁴² In many areas throughout this territory one can find the remains of a notational tradition that can be defined as Ravennate. The Ravennate notation is found in some eleventh century sources⁴³; influenced by the *Nota Romana*⁴⁴, it develops into sophisticated shapes during the twelfth century.⁴⁵

40. Photographic reproduction in *Paléographie musicale XVIII*. See also GHERARDI 1959; GARRISON 1960, p. 4 and 93-11; CASADEI TURRONI MONTI, 1992; KURRIS 1992; 1993; *Codex Angelicus* 1996; KURRIS, 1996; CASADEI TURRONI MONTI 1997; KURRIS 1997-1; 1997-2; CIANCETTA 1999; CASADEI TURRONI MONTI 2001. For the recovery of some melodies in Angelica 123, see CATTANEO 2003. I did not manage to find a fragment in Bucarest made known in 1993 by Vassili Tomescu; the digitalized reproduction of Graz 748 is on-line. On the latest discoveries, see ROPA 2007, especially p. 34.

41. See GONZALEZ-BARRIONUEVO 1995; FERRETTI 1995; 1998.

42. The two fragments studied by Locanto are not in Ravennate notation. See LOCANTO 2005.

43. See particularly the Pomposan breviary Udine, Arch. e Bibl. Storici Diocesani, Bibl. Arcivescovile, 79. On its graphic tradition, see COLANTUONNO 2000, p. 192-200.

44. The exact genesis of the late Ravennate notation on Guidonian staff is not yet clear. This notation became hegemonic in the twelfth century; Padova 47 or Modena O.I.7 are two of the best known sources. There are two main hypotheses worth mentioning here: 1) the evolution of an earlier musical script (e.g. Udine 79) under the influence of the *Nota Romana* or 2) the transformation of the *Nota Romana* in the Ravennate area leading to a more refined and slender shape according to the canons of the old local tradition.

45. The Ravennate provenance of this particular neumatic morphology is confirmed by the high density of local production, as revealed by many Ravennate fragments still *in loco*. Some of them were made known by PRATELLA 1936. Too few photographic reproductions prevent any attempt at reading in PRATELLA 1994. See BRUNELLI 1995; GARAVAGLIA 2000; DI ZIO 2008.

Some sources: Baltimore, Walters Art Gallery, W. 11 (Missal S. Ambrogio di Ranchio); Fontevellana, Arch. Eremo S. Croce, Nn (Breviary); Modena, Arch. Capit., O.I.7 (Gradual); Padova, Arch. Capitolare, A 47 (Gradual).

Amongst the fragments, an important source for an archaic stage (eleventh century) of the local notation deserves attention: Ravenna: Bibl. Classense, 503/9 (Antiphonary). On this source, see CASADEI TURRONI MONTI 2002, p. 125 with a table of the neumes in Baltimore, Walters Art Gallery, W. 11. Other sources are: Ravenna, Arch. Storico Arcivescovile, frammm. 5; frammm. 6; Bibl. Classense, 503/9.

Fragmentary thirteenth-century sources for the Ravennate notation: Bergamo, Bibl. Seminario, Cinquec. 47, coperta (Missal); Berlin, Staatsbibl., Hamilton 7, fol. 2^{rv} (Antiphonary with the Formulary for S. Severo); Bologna, Bibl. Universitaria, 2217, fols. 203-204 (Antiphonary); 2493, fols. 153-154 (Troper-Sequentiary), s.s. (Gradual: only known source for the antiphon *Pro cuncto populo christiano* along with the Bolognese ms. Angelica 123, fol. 123^v); Collegio di Spagna, Arch. 23, fol. guardia (Missal); Museo Intern. and Bibl. della



Figure 27. Responsory *Vidi speciosam* in Ravenna, Bibl. Classense, 105/1 (Eastern Padania, 13th century).

The origin of certain sources featuring notation quite similar to those found in Eastern Europe (Austria, Hungary, etc.) can also be pinpointed to the area between Bologna and Ravenna.⁴⁶ Like that of Como, this particular notation adopted the graphical morphology of some Metz neumes; one might also consider the influence of the Cistercian notational tradition as well as that of other monastic communities (fig. 27). This explains some similarities with eastern European sources.⁴⁷

ROME AND THE DIFFUSION OF THE *NOTA ROMANA*

In the last decades, one notation in particular has often been referred to as Beneventan or 'transitional'.⁴⁸ A more correct term, however, is *Nota Romana*.⁴⁹ The graphic morphology of the *Nota Romana* differs from that of almost any other Italian musical notation from the tenth to the twelfth century. These, in fact, as we mentioned earlier, chiefly developed following Frankish and German models. During the eleventh, twelfth and thirteenth

Musica, Q 3, 25 (Antiphonary), Q 3, 30 (Missal), Q 3, 50 (Antiphonary), Q 3, 66 (Antiphonary), Q 8, 6 (Gradual), Q 8, 13 (Missal), Q 8, 26 (Missal), Q 8, 29 (Missal), Q 8, 31 (Antiphonary Collectary); Cesena, Bibl. Malatestiana, Bibl. Comunitativa, 166.12 (binding: Breviary); Cremona, Arch. di Stato, Notarile Fr. Mus. 7 (Antiphonary); Bibl. Statale, Fragn. Lit. 1 (Antiphonary); Milan, Bibl. Ambrosiana, S.P. 6/8 nr. 3 (Gradual), S.P. 6/8 nr. 8 (Antiphonary), S.P. 6/8 nr. 10 (Antiphonary with the Formulary for S. Severo containing the antiphon *Te Deum trinum* cited by the anonymous author – possibly Guido d'Arezzo – of the *Dialogus de musica*); Modena, Arch. di Stato, Bibl. Framm. Busta 13, 9 (Antiphonary); Busta 13, 11 (Breviary); Munich, Bayer. Staatsbibl., Clm 2538, fol. guardia (Antiphonary with the Formulary for S. Severo); Oxford, Bodleian Libr., Canon. Lit. 358, fols. 1-2, 49-50 (Antiphonary, Office for s. Apollinare); Poppi, Bibl. Com. Rilliana, Inc. 427 fol. guardia (Antiphonary); Ravenna, Arch. di Stato, Fragn. membr. 2 (Antiphonary), 2 (Missal), 3 (Gradual-Troper-Sequentiary like Padova A 47), Arch. Storico Arcivescovile, Framm. 36-39 (Antiphonary), 43 (Antiphonary), 43 bis (Antiphonary); Arch. Storico Comunale, Fragn. Membr. 102 (Antiphonary), 103 (Antiphonary with the Formulary for S. Severo), 104 (Antiphonary), 106 (Gradual), 107 (Antiphonary), 108 (Antiphonary), 109 (Antiphonary), 110a (Antiphonary), 110b (Antiphonary), 112a (Antiphonary), 112b (Antiphonary), 112c (Antiphonary), 113 (Antiphonary), 118 (Breviary), 131 (Antiphonary); Bibl. Classense, 503/2 (Missal), 503/5 (Antiphonary); Rimini, Bibl. Civ. Gambalungiana, SC-MD 29 (Antiphonary); Rome, Bibl. Angelica, 1967, fol. guardia (Antiphonary), 2313, fol. guardia B (Antiphonary); Pont. Coll. Irlandese, Arch., Framm. Mus. 3 (Antiphonary); Urbino, Arch. di Stato, Ultima 315 (Gradual), Ultima 318 (Gradual); Vatican, Biblioteca Apostolica Vaticana, Vat. lat. 10645, fol. 51 (Gradual), Vat. lat. 10646, fol. 2 (Missal); Venice, Bibl. Naz. Marciana, Lat. II 46, fol. 3^r (*Salve regina*), Lat. XIV 341 (12982) (Antiphonary).

46. Some Antiphonaries from the first half of the thirteenth century: Bologna, Museo Internazionale, Q 3, 2; Ravenna, Arch. di Stato, Frammenti (fascio di liste di ricupero); Bibl. Classense, 105/1.

47. See above, n. 34.

48. The last few decades have witnessed a great interest in Beneventan sources due to the fact that scholars have concentrated more on the musical production of two Campania centres (Benevento and Montecassino) and also thanks to the publication of two volumes of the *Paléographie musicale* (XIV, XV and more recently, XX and XXII, with Benevento 40 in another series). On this issue, see BAROFFIO 1995; BOE 1995.

49. See BAROFFIO 2008.

centuries, a single notational module based on the Guidonian linear system spread to a large portion of the Italian territory.

Despite the great variety of local *scriptoria* traditions, a single Italic notational culture established itself right in the centre of the Italian peninsula and spread from there to nearby areas. If we take as a starting point the city of Rome – or the Umbro-Laziale triangle Rome-Farfa-Narni – we can observe that the spreading of the *Nota Romana* proceeded following concentric circles. Progressively, northern Umbria, Tuscany and Emilia⁵⁰ were reached, and finally those Lombard areas that did not follow the Ambrosian rite. In the South, the *Nota Romana* spread to southern Lazio, northern Campania and Puglia. Eventually, the area extended from Tuscany⁵¹ (Arezzo⁵², Fiesole, Firenze⁵³, Lucca⁵⁴,

50. I do not agree with the tendency to consider the Beneventan notation as the notational matrix for many Italian musical scripts. For example, DELFINO 1996, p. 156.

51. An early census of the rich Tuscan notational variety is found in MAZZOLINI 1989. The descriptions are of the notations contained in the following sources: Florence, Bibl. Med. Laurenziana, Ashburn. 61 (Missal, Toscana, eleventh and twelfth century); Gaddi 44 (Missal, Toscana, twelfth century); Lucca, Bibl. Capitolare, 606 (Missal, Lucca, beginning of the eleventh century); Pistoia, Bibl. Capitolare, C.119 and C.120 (Graduals, Pistoia, beginning of the twelfth century); Rome, Bibl. Vallicelliana, C 52 (Gradual, central Italy, eleventh and twelfth century); Toledo, Bibl. Capitolare, 52.11 (Missal, Arezzo, first half of the thirteenth century). See also ALPIGIANO & LICCIARDELLO 2009, p. 139-161. A systematic study of the fragment Cremona, Facoltà di Musicologia, s.s., has been undertaken by ROSA BAREZZANI 1996.

Some other Tuscan books, including some Sardinian sources (the island underwent a significant influence by Tuscan monastic institutions, both Camaldolesi and Vallombrosan): Berlin, Staatsbibl., Hamilton 688 (Volterra?, first half of the thirteenth century); Florence, Bibl. Medicea Laurenziana, Acq. e Doni 132 (Lectionary for the Mass, twelfth century); Amiat. 1 (Bible, additions from the end for the eleventh century or the beginning of the twelfth), Conv. Soppr. 560 (Antiphonary, Toscana, Vallombrosa, first half of the twelfth century), Edili 111 (Missal, Fagnano, twelfth century), Fies. 4 (Bible, Fregionara S. Maria, beginning of the twelfth century); Iglesias, Arch. Capitolare (Office of S. Antioco, twelfth century, seventeenth-century copy); Oristano, Aula Capitolare, PX e PXIII, fol. guardia (Breviary, twelfth and thirteenth century); Paris, BnF, Lat. 794 (Lectionary for the Hours, Pistoia?, third quarter of the twelfth century); Pisa, Arch. Opera Primaziale, Exultet 1 (Pisa, first half of the twelfth century); Museo Opera del Duomo, Exultet 3 (Pisa, mid-thirteenth century); Pistoia, Arch. Capitolare, C. 121, fol. 2-81 (Troper-Sequentiary, Pistoia, first quarter of the twelfth century), plus the fragment edited by BRUNNER 1990; Prato, Arch. di Stato, Spedali 2606 (Breviary, second half of the twelfth century); Rome, Bibl. Casanatense, 1907 (B.II.1) (Breviary-Missal, S. Salvatore al Monte Amiata, sec. XIth); Vatican, BAV, Vat. lat. 7017 (Breviary, eleventh and twelfth century); Volterra, Bibl. Guarnacci, 5403 (274) (Missal-Ritual, Fibbiano Ss. Fabian and Sebastian, first half of the twelfth century); 5700 (L. 3.39) (Troper-Sequentiary, Volterra Duomo, first quarter of the twelfth century).

52. Cortona, Bibl. Comunale, 12 (Missal-Breviary, Arezzo?, last quarter of the twelfth century); Florence, Bibl. Nazionale Centrale, II.I.413 (Conv. Soppr. Vallombrosa 1) (Antiphonary, Arezzo, end of the thirteenth century). Two fragments possibly from St Flora and Lucille Abbey: Bologna, Museo internazionale, Q 3, 7 (Missal, beginning of the twelfth century) and Siena, Arch. di Stato, Framm. Mus., Cat. 324 Inserto 33 (Gradual, twelfth century). The two saints are mentioned in the litanies contained in an early twelfth-century Tuscan fragment (Bologna, Bibl. Univ., 2217, fol. 165^v). For other sources, see LICCIARDELLO 2007.

53. Florence, Arch. Arcivescovile, s.s. (Antiphonary, S. Reparata, first quarter of the twelfth century): see ALPIGIANO 2002. Closely related to this book is a fragment of a contemporary Antiphonary, with the formulary for St Zenobius, now in Bologna, Bibl. Universitaria, 2217, fols. 219-220; Florence, Bibl. Medicea Laurenziana, Edili 131, fols. 1-199 (Psalter-Hymnary, twelfth and thirteenth century); Gaddi 44 (Missal, last quarter of the twelfth century).

54. Florence, Bibl. Medicea Laurenziana, Conv. Soppr. 304, fols. 1^r-185^v (Lectionary for the Hours, Lucca?, third quarter of the twelfth century); Lucca, Bibl. Capitolare, 601 (Antiphonary, Pozzeveri S. Pietro, first half of the twelfth century), 606 (Missal, Lucca S. Salvatore, beginning of the eleventh century); Pistoia, Arch. Vescovile, R. 69 (Gradual, Lucca?, beginning of the twelfth century).

BARALLI 1911 mentions in liturgical books from Lucca the use of a cross in order to distinguish the *divisiones* of the text. These are sometimes highlighted by a capital letter in Vatican, Archivio S. Pietro B 79, but they are missing in London, British Library, Add. 29988. This is not to dismiss that the cross or the capital letter

Pisa⁵⁵, Pistoia⁵⁶, Siena⁵⁷, Volterra⁵⁸ and other minor centres⁵⁹) to Marche⁶⁰, ranging from Lazio⁶¹ to Umbria⁶², and from Abruzzo⁶³ to Norman Puglia.⁶⁴ It is highly plausible that during the tenth century, a graphic setting developed in the city of Rome (figs. 28 and 29) or in a centre that was in close relationship with papal authority.⁶⁵

might reveal the habit of singing antiphons also within psalms and canticles, as it happens in the traditional performance of the invitatory. It also still remains to assess which of the following fragments in the Archivio di Stato are of Lucchese origin: see VENTURINI 2007.

55. A large quantity of fragments containing neumatic notation is found in Pisa's Archivio di Stato (which I last accessed in 1992: the fragments were without shelf mark and wrapped in newspapers) and in the Biblioteca Cateriniana.

56. See MAIELLO 2010.

57. Of considerable quality and quantity is the collection, likely of Senese origin, kept in Siena, Archivio di Stato. Here are the fragments from twelfth- and thirteenth-century Antiphonaries: Frammenti musicali (01), (03), (05), (44) [17], (45) A, (45) B, A 188 bis 006/07 (17), A 188 bis 008/9 (19), A 188 bis 012 (22), A 188 bis 017 (20), A 188 bis 020 (18), A 188 bis 030 (18), A 188 bis 057 (16), A 188 bis 058.64 (15), A 188 bis 059/60, A 188 bis 077 (21), A 188 bis 082 (17), Cat. 323 Inserto 30, Cat. 324 Inserto 40, Cat. 324 Inserto 41, Cat. 324 Inserto 42, and Trombone Misc.b. 01/A. Not yet identified is the exact origin of two fragments from an eleventh-century Missal with tropes: Frammenti Musicali (10), and Cat. 323 Inserto 34/B.

58. Volterra, Bibl. Guarnacci, 5700 (L. 3.39) (Troper-Sequentiary, Volterra Duomo, first quarter of the twelfth century).

59. See RADICCHI & ZOLESI 1999.

60. See PERETTI 2000. A consistent collection of fragments containing Beneventan notation has been studied by FICCADENTI 2002. This confirms the existence of a particular phenomenon that I have already mentioned in other contexts, namely, that neumatic scripts in peripheral areas likely developed at a different pace than those of major centres. In Montecassino and Benevento, for example, the *quilisma* disappeared at least one century earlier than in Marche where it can still be found in mid thirteenth-century sources.

61. Some manuscript sources from Lazio: Subiaco, Bibl. S. Scolastica, XVIII 19 (Missal, beginning of the thirteenth century); Toledo, Bibl. Catedral, 35.13, 2-301 (Missal, Subiaco Rocca, thirteenth century). The provenance of other important sources is not yet defined, but their contents seem to be close to the Umbro-Laziale area, as the Epistolary-Gradual in Messina, Bibl. Painiana, 19 (beginning of the twelfth century).

62. Some sources of Umbrian provenance: Assisi, Arch. Capitolare S. Rufino, 5, fols. 1-171 (Antiphonary, end of the twelfth century); Bibl. Centro Documentazione Francesc., 694 (Breviary, Assisi OFM, second quarter of the thirteenth century); Chicago, Newberry Libr., 24 (23817) (Breviary, Perugia, OFM, thirteenth and fourteenth century); Narni, Bibl. Diocesana, s.s. (Psalter-Hymnary, thirteenth century); Oxford, Bodleian Libr., Canon. liturg., 320 (Breviary, Città di Castello, twelfth century); Paris, BnF, nouvelles acquisitions latines 1669 (Gradual with tropes and sequences, Gubbio, twelfth and thirteenth century); Rome, Bibl. Vallicelliana, C 5, (Antiphonary, S. Eutizio, eleventh and twelfth century), C 13 (Breviary, S. Eutizio, twelfth century); Toledo, Bibl. Catedral, 48.14 (Antiphonary, Umbria-Lazio, third quarter of the twelfth century), 39.20 (Ritual, Perugia, thirteenth and fourteenth centuries). For a general account, see CILIBERTI 1994. As far as notation is concerned, the most studied centre is the Sant' Eutizio abbey near Norcia, which production has been analysed by Laura MARTUSCELLI 1990. On two important archives containing fragments, see BAROFFIO 1997, and BAROFFIO ET AL. 1998.

63. See MISCIA 2001.

64. In the Biblioteca Capitolare in Bovino is kept a twelfth-century notated Breviary containing a Formulary of S. Wandregisilus (Wandrille).

65. A sure point of reference for Roman notational practice is found in Old Roman chant sources. Besides the well-known complete chant books, during the last year some fragments of three Antiphonaries dated to the end of the twelfth century and the beginning of the thirteenth have also been recovered: Bologna, Museo Internazionale, Q 3, 19; Frosinone, Arch. di Stato, Raccolta Perg., 82 (99); Sutri, Arch. Storico Comunale, A 1, 40.

The musical notation in the Roman 1071 Gradual is analysed by LÜTOLF 1987, p. 24-31. The liquescent sign studied on p. 30 reveals parallels with the Umbro-Laziale territory; see, for example, the fragment of an early twelfth-century Antiphonary now in Todi, Arch. Storico Comunale, Notarle 126 (Notatio Giovanni Antonio Astrancolle, 12-14: 1544-1546).

Besides the presence of Old Roman musical and liturgical repertory, another important clue as to the Roman provenance of a liturgical manuscript is a Kyrie structure with *versus* or trope elements and a final 'amen',

Figure 28. Responsoy *Recessit pastor fons* in Vatican, BAV, Arch. Capitolo S. Pietro B 79, fol. 101^r (Rome, last quarter of the 12th century).

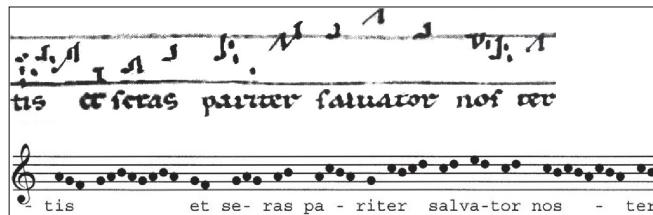
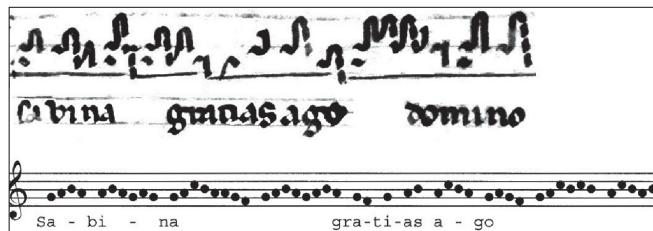


Figure 29. Responsoy *Ego Sabina* in Bologna, Museo Internazionale, Q 3/19 (Rome, end of the 12th century).



Figures 30-31 show a comparison between Romano-Laziali and Beneventan notations.⁶⁶ In the analysis of the *Nota Romana*, it is therefore important to specify the date and provenance of the often fragmentary sources. Certain graphic changes, such as a stroke's increasingly thick and blocky appearance, characterised a later stage, only occurring where the notation persisted for a longer time span. During the twelfth and thirteenth century, the use of the *Nota Romana* ranged across the whole Italian peninsula before being overtaken by square notations.

The origin and development of the *Nota Romana* still raises a number of important questions.⁶⁷ Where and when did the model for such a notation originate? What were the necessities leading to such a graphic phenomenon? What were the factors and avenues that facilitated its diffusion? Musical manuscripts alone cannot provide a satisfying answer. Certain aspects of the social, cultural and ecclesiastical context, however, can shed light on this notation.

The eleventh century was a time of substantial ecclesiastical engagement that focused on reforming the Church through its morals and institutions. One of the key concepts in this reform was that of a return to the old ecclesiastical Roman tradition.⁶⁸ The reformation movement originated in Rome and, via Tuscany, eventually reached the Padania. This route was likely the same one followed by the *Nota Romana* notational culture.⁶⁹

In the commitment to greater unity within the Church, the reformation of liturgical and musical repertoires became increasingly important, and Guido of Arezzo was perhaps the major personality responsible for musical reform. Trained in Pomposa, where he likely became familiar with an archaic type of Ravennate notation,⁷⁰ Guido developed his musical teaching during an intense period of activity in Arezzo. There, between 1023 and 1036, was located bishop Teodaldo of Canossa, uncle of the famous countess Matilde.

as in Foligno, Arch. di Stato, 2 A N 229 and 529 (Missal, first half of the twelfth century) and Cambridge, University Libr., Add. 3389 (Gradual, second half of the eleventh century).

66. BAROFFIO & KIM 1995, especially p. 25. See also BOE 1999.

67. See VAN DIJK & HAZELDEN WALKER 1960, p. 221 and following.

68. See ELZE 1989; BLUMENTHAL 2001; PALAZZO 2007.

69. See RUINI (forthcoming).

70. See comparisons and analysis in COLANTUONNO 2000.

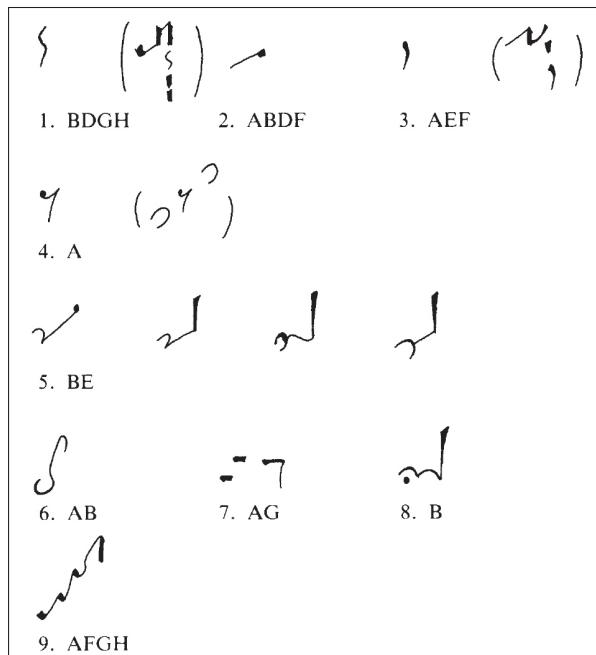


Figure 30.

A: Vatican, BAV, Chigi C VI 177;
 B: Arch. Cap. S. Pietro F 11 A;
 C: Cologny, Coll. Bodmer, C 74;
 D: Vatican, BAV, Vat. lat. 5319;
 E: Vatican, BAV, Arch. Cap.
 S. Pietro B 79;
 F: Vatican, BAV, Arch. Cap.
 S. Pietro F 22;
 G: Benevento, Bibl. Capitolare.

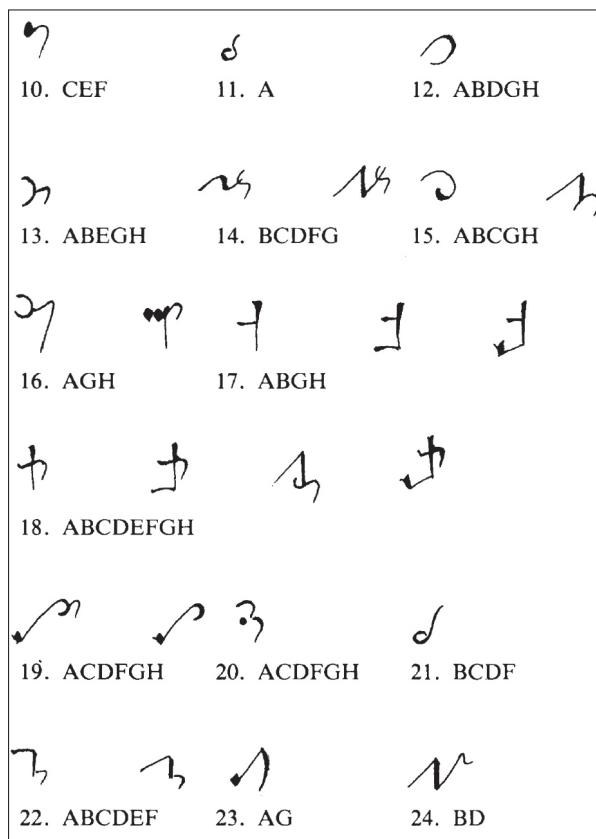


Figure 31.

A: Vatican, BAV, Chigi C VI 177;
 B: Arch. Cap. S. Pietro F 11 A;
 C: Cologny, Coll. Bodmer, C 74;
 D: Vatican, BAV, Vat. lat. 5319;
 E: Vatican, BAV, Arch. Cap.
 S. Pietro B 79;
 F: Vatican, BAV, Arch. Cap.
 S. Pietro F 22;
 G: Benevento, Bibl. Capitolare.

Before 1030, Guido presented to the pope and to the Roman curia a copy of his antiphonary, arousing great interest in his methods and contributing to the diffusion of the new notational system: a synthesis of his Pomposiano-Aretini theoretical principles and of the Umbro-Laziale notational tradition. This synthesis soon became the *Nota Romana*. Not only was it applied to new liturgical sources that followed the Guidonian system, but the *Nota Romana* also became fully integrated in the ecclesiastic culture's unification programme.

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Translated by Giovanni Varelli

BIBLIOGRAPHY

ALBIERO 2009 : Albiero Laura, « I canti della messa nei frammenti dell'Archivio di Stato di Pavia. Canto, memoria, scrittura », *Rivista Internazionale di Musica Sacra*, XXX/2 (2009), p. 67-95.

ALPIGIANO 2002 : Alpigiano Giovanni, « L'Antifonario di Firenze: la notazione neumatica », *Rivista Internazionale di Musica Sacra*, XXIII/2 (2002), p. 35-6.

BAILEY 2008 : Bailey Terence, « A lost Ambrosian antiphoner of Southern Italy », *Plainsong and Medieval Music*, XVII (2008), p. 1-22.

BANNISTER 1913 : Bannister Henry Marriott, *Monumenti Vaticani di paleografia musicale latina raccolti ed illustrate*, Leipzig, Harrassowitz, 1913.

BARALLI 1911 : Baralli Raffaele, « Le croci nei mss. gregor. ed altre particolarità », *Rassegna Gregoriana*, X (1911), p. 201-202.

BAROFFIO 1995 : Baroffio Giacomo, « Un secolo di ricerche sulla notazione musicale beneventana », in *In the Shadow of Montecassino. Nuove ricerche dai frammenti di codice dell'Archivio di Stato di Frosinone*, Frosinone, Archivio di Stato di Frosinone, 1995, 59-66.

BAROFFIO 1997 : Baroffio Giacomo ed. *Colligere fragmenta ne pereant. Aspetti della liturgia medievale nei frammenti dell'Archivio Storico Comunale. Catalogo*, Norcia, Comune, 1997.

BAROFFIO 2000 : Baroffio Giacomo « Presenza musicale nella Bibbia Amiatina's » in *Bibbia 2000*.

BAROFFIO 2008 : Baroffio Giacomo, « Nota Romana: l'espansione delle notazioni italiane e l'area d'influsso dei Canossa », in A. Calzona ed., *Matilde e il tesoro dei Canossa tra castelli, monasteri e città*, Milano, Cinisello Balsamo, 2008, p. 165-175.

BAROFFIO 2009 : Baroffio Giacomo, « Notazioni neumatiche (secoli IX-XIII) nell'Italia settentrionale: inventario sommario », *Aevum*, LXXXIII (2009), p. 529-579.

BAROFFIO & KIM 1995 : Baroffio Giacomo & Kim, Soo Jung, « Note di paleografia musicale », in *Biblioteca Apostolica Vaticana. Archivio S. Pietro B 79. Antifonario della basilica di S. Pietro (Sec. XII)*, Rome, Viella, 1995, p. 13-23.

BAROFFIO, DODA & TIBALDI 1998 : Baroffio Giacomo, Doda Alberto & Tibaldi Rodobaldo, « Musim. *Musicae Imagines*. Gli studi di paleografia musicale e l'esigenza di nuovi strumenti di ricerca », *Scrittura e civiltà*, XXII (1998), p. 419-472 ; XXIII (1999), p. 451-472 ; XXIV (2000), p. 419-472, and XXV (2001), p. 425-458.

BAROFFIO ET AL. 1998 : Baroffio Giacomo et al. eds., *Frammenti di storia medievale. Mostra di codici e frammenti di codici liturgici dei secoli XI-XVI dall'archivio storico del Comune di Stroncone. Catalogo*, Stroncone, Comune, 1998.

BIBBIA 2000 : L. G. G. Ricci ed., *La Bibbia Amiatina. Riproduzione integrale su CD-ROM del manoscritto Firenze, Biblioteca Medicea Laurenziana Amiatino 1*, Florence, Sismel, Edizioni del Galluzzo, 2000.

BISCHOFF 2004 : Bischoff Bernhard, *Katalog der festländischen Handschriften des neunten Jahrhunderts (mit Ausnahme der wisigotischen)*. II: Laon-Paderborn, ed. by Birgit Ebersperger, Wiesbaden, Harrassowitz, 2004.

BLUMENTHAL 2001 : Blumenthal Uta-Renate, *Gregor VII. Papst zwischen Canossa und Kirchenreform*, Darmstadt, Primus Verlag, 2001.

BOE 1995 : Boe John, « Chant Notation in Eleventh-Century Roman Manuscripts », in Graeme M. Boone ed., *Essays on Medieval Music in Honor of David G. Hughes*, Cambridge Mass., 1995, p. 43-57.

BOE 1999 : Boe John, « Music notation in Archivio San Pietro C 105 and in the Farfa Breviary, Chigi C VI 177 », *Early Music History*, XVIII (1999), p. 1-45.

BRAMATI FERRARI 1979 : Bramati Ferrari Giuliana, *La notazione neumatica di Monza*, Ph.D. diss., Cremona, Università di Pavia, 1979.

BRUNELLI 1995 : Brunelli Alberto, *I frammenti liturgico-musicali medievali con notazione di tipo ravennate conservati a Ravenna. Inventario e analisi neumatica*, M. diss., Rome, Pontifical Institute of Sacred Music, 1995.

BRUNNER 1990 : Brunner W. Lance, « Two Missing Fascicles of Pistoia C.121 Rediscovered », in László Dobszay et al. eds., *Cantus Planus. Papers Read at the Third Meeting. Tihany, Hungary, 19-24 September 1988*, Budapest, Hungarian Academy of Sciences, Institute of Musicology, 1990, p. 1-19.

BRUSA 2009 : Brusa Gionata, ‘Colligere fragmenta ne pereant. Nuove maculature nella Biblioteca Capitolare di Vercelli’, *Rivista Internazionale di Musica Sacra*, XXX/2 (2009), p. 97-135.

CAMILOT-OSWALD 1997 : Camilot-Oswald Raffaella, *Die liturgischen Musikhandschriften aus dem mittelalterlichen Patriarchat Aquileia. I: Einleitung, Handschriftenbeschreibung*, Kassel, Bärenreiter, 1997.

CASADEI TURRONI MONTI 1992 : Casadei Turroni Monti Mauro, « Aspetti anomali della grafia ante-oriscus nel cod. Roma, Bibl. Angelica 123 », *Studi Gregoriani*, VIII (1992), p. 65-91.

CASADEI TURRONI MONTI 1997 : Casadei Turroni Monti Mauro, « La lettura del salicus nel cod. Roma, Bibl. Angelica 123 », *Studi Gregoriani*, XIII (1997), p. 141-176.

CASADEI TURRONI MONTI 2001 : Casadei Turroni Monti Mauro, « Mobilità neumatica nei contesti paralleli del cod. Roma, Bibl. Angelica 123 », *Studi Gregoriani*, XVII (2001), p. 147-168.

CASADEI TURRONI MONTI 2002 : Casadei Turroni Monti Mauro, « Le prime testimonianze di musica scritta a Ravenna: i frammenti adiastematici », in G. Filocamo ed., *Melodie dimenticate. Stato delle ricerche sui manoscritti di canto liturgico, Atti del convegno, Spoleto, 2-3 ottobre 1999*, Florence, Olschki, 2002, p. 113-126.

CATTANEO 2003 : Cattaneo Massimiliano, *Il repertorio quaresimale nei manoscritti Roma, Biblioteca Angelica 123 e Modena, Archivio Capitolare O.I.13: continuità e innovazione entro la tradizione liturgica Bolognese*, Ph.D. diss., Cremona, Università di Pavia, 2003.

CAZAUX-KOWALSKI 2006 : Cazaux-Kowalski Christelle, *Le Graduel-responsorial-antiphonaire palimpseste de Turin Paris, BnF, ms. Grec 2631 (X^e-X^r s.) : édition et commentaire*, Ph.D. diss., Paris, École Pratique des Hautes Études, 2006.

CEREGHETTI 2006 : Cereghetti Myrta, *Il graduale Comasco Bibl. cap. Vercelli CLXXXVI*, Ph.D. diss., Cremona, Università di Pavia, 2006.

CIANCETTA 1999 : Ciancetta Alessandra, « Il torculus angoloso nel cod. Roma, Bibl. Angelica 123 », *Studi Gregoriani*, XV (1999), p. 113-131.

CILIBERTI 1994 : Ciliberti Galliano, *Musica e liturgia nelle chiese e conventi dell’Umbria (secoli X-XV) con un Atlante-Repertorio dei più antichi monumenti musicali umbri di polifonia sacra*, Perugia, Cattedra di Storia della musica, Centro di Studi musicali in Umbria, 1994.

Codex Angelicus 1996 : Rosa Barezzani Maria Teresa & Ropa Giampaolo eds., *Codex: Codex Angelicus 123. Studi sul graduale-tropario bolognese del secolo XI e sui manoscritti collegati*, Cremona, Una Cosa Rara, 1996.

Codices 1993 : M. Costa ed., *Codices et livres liturgiques en Vallée d'Aoste (XI^e-XVIII^e siècles)*, Aoste, Région autonome de la Vallée d'Aoste, 1993.

COLANTUONNO 2000 : Colantuonno Maria Incoronata, « Il Breviario pomposiano ms. Udine, Bibl. Arcivescovile, 79 », in Angelo Rusconi ed., *Guido d'Arezzo monaco pomposiano. Atti dei Convegni di studio Codigoro (Ferrara), Abbazia di Pomposa, 3 ottobre 1997-Arezzo, Biblioteca Città di Arezzo, 29-30 maggio 1998*, Florence, Olschki, 2000, p. 185-200.

COLETTE 1997 : Colette Marie-Noël, « Un graduel-antiphonaire-responsorial noté sauvé de l'oubli (Palimpseste Paris, B.N.F. grec 2631). Région de Turin, x^e siècle », *Revue de Musicologie*, LXXXIII (1997), p. 65-79.

CONTI 2003 : Conti Giovanni, « Frammenti di un antifonario romano. Ipotesi per una prassi liturgico-musicale », *Bloc notes*, XLVIII (2003), p. 289-316.

CORBIN 1977 : Corbin Solange, *Die Neumen*, Köln, Arno Volk, Hans Gerig, 1977.

CROCHU & GATTÉ : Crochu Dominique & Gatté Dominique, 'Gregofacsimil' <<http://www.gregofacsimil.net/03-MANUSCRITS/INTERNET-ET-LES-MANUSCRITS/Dossier-ms/Base-de-manuscrits-internet.xls>> (1 January 2009)

DELFINO 1996 : Delfino Antonio, « Il codice Modena, Biblioteca Capitolare O.I.13: elementi per una scheda descrittiva, con un' appendice sulla notazione neumatica », in *Codex Angelicus* 1996, p. 135-171.

DI ZIO 2008 : Di Zio Cristina, *Fonti della tradizione liturgico-musicale in notazione ravennate (sec. XI-XII). Il repertorio dei canti per la Messa*, Ph.D. diss., Padova, Università, 2008.

DOWNEY 1994 : Downey Charles, *Breton Notation in France and Northern Italy: A Comparative Study of Offertories in Chartres, Bibl. mun., 47 and Ivrea, Bibl. cap. LX*, M.A. Thesis, Washington, D.C., Catholic Univ. of America, 1994.

DOWNEY 1998 : Downey Charles, « The Breton Notation in Ivrea LXX », *Studia Musicologica*, XXXVIII/2-4 (1998), p. 187-193

ELZE 1989 : Elze Martin, « Gregor VII. und die römische Liturgie », *Studi Gregoriani*, XIII (1989), p. 179-188.

ENGELS 2001 : Engels Stefan, « Einstimmige liturgische Handschriften des Mittelalters in Tirol », in K. Drexel & M. Fink eds., *Musikgeschichte Tirols. I: Von den Anfängen bis zur Frühen Neuzeit*, Innsbruck, Universitätsverlag Wagner, 2001, p. 219-322.

FERRETTI, 1995 : Ferretti Bernardino, « Molti dialetti, un' unica lingua », *Studi Gregoriani*, XI (1995), p. 155-188.

FERRETTI, 1998 : Ferretti Bernardino, « Manoscritti in notazione neumatica koiné e riforme monastiche », *Benedictina*, XLV (1998), p. 47-89.

FICCADENTI 2002 : Ficcadenti Lilia Flavia, *Colligere fragmenta ne pereant: catalogo di antiche pergamene con notazione beneventana dell' Archivio di Stato di Macerata*, Napoli, Luciano, 2002.

FLEISCHER 1897 : Fleischer Oskar, *Neumen-Studien. Abhandlungen über mittelalterliche Gesang-Tonschriften. II: Das alt-christliche Recitativ und die Entzifferung der Neumen*, Leipzig, Fr. Fleischer, 1897.

FLEISCHER 1923 : Fleischer Oskar, *Die germanischen Neumen als Schlüssel zum altchristlichen und gregorianischen Gesang*, Frankfurt, Frankfurter Verlags-Anstalt, 1923.

FREZET 2001 : Frezet Chiara, *Il messale di Charvensod. Aosta, Biblioteca del Seminario Maggiore, Cod. 5. Studio critico*, Aoste, Académie Saint-Anselme, 2001.

GALLI 1998 : Galli Silvia, *La notazione neumatica nel manoscritto LX della biblioteca capitolare di Ivrea*, Ph. D. diss., Cremona, Università di Pavia, 1998.

GARAVAGLIA 2000 : Garavaglia Andrea, « Una nuova testimonianza di notazione ravennate a Cremona », in Angelo Rusconi ed., *Guido d'Arezzo monaco pomposiano. Atti dei convegni di studio Codigoro (Ferrara), Abbazia di Pomposa, 3 ottobre 1997, Arezzo, Bibl. Città di Arezzo, 29-30 maggio 1998*, Florence, Olschki, 2000, p. 217-240.

GARRISON 1960 : Garrison Edward B., *Studies in the History of Mediaeval Italian Painting*. IV: *Pictorial Histories*. XII: *A Gradual of S. Stefano, Bologna, Angelica 123*, Florence, L'Impronta, 1960.

GHERARDI 1959 : Gherardi Luciano, « Il cod. Angelica 123. Monumento della Chiesa bolognese nel Sec. xi », *Quadrivium*, III (1959), p. 5-114.

GHIGLIONE 2009 : Ghiglione Natale, *Trotti 414 un codice ambrosiano del IX secolo. Considerazioni storico-paleografiche e musicali*, Lucca, LIM, 2009.

GONZALEZ-BARRIONUEVO 1995 : Gonzalez-Barrionuevo Herminio, « Relación entre la notación “mozárabe” de tipo vertical y otras escrituras neumáticas », *Studi Gregoriani* XI (1995), p. 5-112.

GOZZI 2001 : Gozzi Mario, « Musikgeschichte der Region Trient bis 1600 », in K. Drexel & M. Fink eds., *Musikgeschichte Tirols*. I: *Von den Anfängen bis zur frühen Neuzeit*, Innsbruck, Universitätsverlag Wagner, 2001, p. 467-594.

GOZZI 2003 : Gozzi Mario, « Tre sconosciuti manoscritti liturgici con notazione del Museo Civico di Bolzano », in *Studi Trentini di Scienze Storiche*, LXXXII (2003), p. 729-778.

GRABAR 1958 : Grabar André, « Peinture murales », in A. Grabar & C. Nordenfalk eds., *La peinture romaine du onzième au treizième siècle*, Genève, Skira, 1958.

HUGLO 1956 : Huglo Michel et al., *Fonti e paleografia del canto ambrosiano*, Milan, Ambrosius, 1956.

HUGLO 1990 : Huglo Michel, « Bilan de 50 années de recherches (1939-1989) sur les notations musicales de 850 à 1300x », *Acta musicologica*, LII/2-3 (1990), p. 224-259.

JAMMERS 1965 : Jammers Ewald, *Tafeln zur Neumenschrift*, Tutzing, H. Schneider, 1965.

KURRIS 1992 : Kurris Alfons, « Rethorische Funktion zwei unterschiedlicher Cephalicusgraphien im Codex Roma Angelica 123 », *Beiträge zur Gregorianik*, XIII-XIV (1992), p. 89-107.

KURRIS 1993 : Kurris Alfons « Lo scandicus quilismatico a tre gradi nel cod. Roma, Bibl. Angelica 123 », *Studi Gregoriani*, IX (1993), p. 47-91.

KURRIS 1996 : Kurris Alfons, « Das Schriftbild im Codex Angelica », *Musicologica Austriaca*, XIV-XV (1996), p. 89-124.

KURRIS 1997-1 : Kurris Alfons, « Climacula Resupinus im Codex Angelica 123. Die unterschiedlichen Graphien und ihre rhythmische Bedeutung », *Beiträge zur Gregorianik*, XXIV (1997), p. 41-55.

KURRIS 1997-2 : Kurris Alfons, « Rom Angelica 123: Graduale di Bologna », *Beiträge zur Gregorianik*, XXIV (1997), p. 101-120.

LICCIARDELLO 2007 : Licciardello Pierluigi, « La liturgia medievale delle sante Flora e Lucilla », *Annali Aretini*, XV-XVI (2007-2008), p. 29-58.

LOCANTO 2005 : Locanto Massimiliano, « Le notazioni musicali della carta ravennate e del frammento piacentino », in M.S. Lannutti & M. Locanto eds., *Tracce di una tradizione sommersa. I primi testi lirici italiani tra poesia e musica*, Florence, Sismel, 2005, p. 123-156.

LUDWIG 1971 : Ludwig Paul, « Lamentations notées dans quelques manuscrits bibliques », *Études Grégoriennes*, XII (1971), p. 224-259.

LÜTOLF 1987 : Lütfolf Max, *Das Graduale von Santa Cecilia in Trastevere (Cod. Bodmer 74). I: Kommentar und Register*, Cologny-Geneva, Fondation Martin Bodmer, 1987.

MAIELLO 2010 : Maiello James Vincent, « On the Manufacture and Dating of the Pistoia Choirbooks », *Plainsong & Medieval Music*, XIX/1 (2010), p. 21-33.

MARTINELLI 1977 : Martinelli Renata, « I frammenti musicali dell'Archivio di Stato di Modena », *Atti e memorie della Deputazione di storia patria per le antiche province modenesi*, X, XII (1977), p. 53-66.

MARTUSCELLI 1990 : Martuscelli Laura, *Le notazioni neumatiche dei codici provenienti dal monastero di Sant'Eutizio in Val Castoriana, XI-XIII sec.*, Ph.D. diss., Roma Università La Sapienza, 1990-1991.

MASCARI 1998 : Mascari, Giuseppina, *La notazione neumatica di Vercelli*, Ph.D. diss., Cremona, Università di Pavia, 1988.

MAZZOLINI 1989 : Mazzolini Marco, *Le notazioni neumatiche dell' Italia centrale*, Ph.D. diss., Cremona, Università di Pavia, 1989.

MISCIA 2001 : Mischia Gianfranco, *Censimento delle Fonti musicali in Abruzzo*, Roma, ISMEZ, 2001.

MODERINI 1970 : Moderini Ave, *La notazione neumatica di Nonantola*, I: *Testo*, Cremona, Athenaeum Cremonense, 1970.

PALAZZO 2007 : Palazzo Éric, « Rome, la Réforme grégorienne et la liturgie. Etat de la question et perspectives de recherches », in Serena Romano & Julie Enckell Julliard eds., *Roma e la Riforma gregoriana. Tradizioni e innovazioni artistiche (XI-XII secolo)*, Rome, Viella, 2007, p. 13-23.

Paléographie musicale XVIII : Le codex 123 de la Bibliothèque Angelica de Rome (x^e siècle) Graduel et Tropaire de Bologne, Paléographie musicale, XVIII, Bern, Lang, 1969.

PARKES 1979 : Parkes Malcom B., *The Medieval Manuscripts of Keeble College, Oxford: A Descriptive Catalogue With Summary Descriptions of the Greek and Oriental Manuscripts*, Oxford, Scholar Press, 1979.

PERETTI 2000 : Peretti Paolo, « Fonti per lo studio della musica nelle Marche nel Medioevo e nella prima Età moderna: note bibliografiche e critiche », in *Quaderni musicali Marchigiani*, vol. 5, ed. by G. Moroni (Urbino: ?, 2000), p. 79-109.

PHILLIPS 2000 : Phillips Nancy, « Notationen und Notationslehren von Boethius bis zum 12. Jahrhundert », in Th. Ertelt & Fr. Zaminer eds., *Die Lehre vom einstimmigen liturgischen Gesang*, Darmstadt, Wissenschaftliche Buchgesellschaft, 2000.

PONZIO 2009 : Ponzio, D. ed. *Le fonti musicali in Piemonte*. II: *Cuneo e Provincia*, Lucca, LIM, 2009.

PRATELLA 1936 : Pratella Francesco Balilla, « Di alcune pergamene con notazione musicale neumatica trovate a Ravenna », *Il Comune di Ravenna*, III (1936), p. 15-30.

PRATELLA 1994 : Pratella Francesco Balilla *trovate a Ravenna (secc. XI-XIV)*, Ravenna, Angelo Longo, 1994.

PRESSACCO & ZERBINATTI 1985 : Pressacco, G., Zerbinatti, P ed., *Miniatuра in Friuli. Catalogo della sezione musicale*, Udine, Istituto per l'Enciclopedia del Friuli Venezia Giuslia, 1985.

RADICCHI & ZOLESI 1999 : Radicchi Patrizia & Zolesi Ilaria, *Codicum fragmenta. Sul ritrovamento di antiche pergamene negli Archivi di Stato di Massa e Pontremoli (secoli XII-XV)*, with the collaboration of Rav. Hillel & M. Sermoneta, Pisa, ETS, 1999.

RAGAINI 1995 : Ragaini Valentina, « Comportamento del torculus nell' offertoriale del cod. Douce 222 della Biblioteca Bodleiana di Oxford (= Nov2) », *Studi Gregoriani*, XI (1995), p. 189-211.

RAINOLDI & PEZZOLA 2002 : Rainoldi Felice & Pezzola Rita, « *Apes debemus imitari*: Ricerca sui frammenti liturgici della Chiesa di Como », *Archivio storico della diocesi di Como*, XIII (2002), p. 9-58; XIV (2003), p. 51-82; XV (2004), p. 9-28.

ROPA 2007 : Ropa Giampaolo, « A una mostra di frammenti librari medievali », in Aurelia Casagrande & Silvia Battistini eds., *Il tesoro dei Capitani. Documenti dall'Archivio dei Vicariati e del Capitanato della Montagna di Bazzano*, Bazzano, Municipio di Bazzano, 2007, p. 25-41.

ROSA BAREZZANI 1996 : Rosa Barezzani Maria Teresa, « Un foglio di messale del XII secolo: notazione e versioni melodiche a confronto », *Studi Gregoriani*, XII (1996), p. 97-123.

RUINI (forth) : Ruini Cesarino, *Nota Romana in Aemilia: Documenti sulla diffusione della notazione dell'Italia centrale nella diocesi di Reggio Emilia* (forthcoming).

SCAPPATICCI 2008 : Scappaticci Leandra, *Codici e liturgia a Bobbio. Testi, musica e scrittura (secoli X-XII)*, Vatican, Libreria Editrice Vaticana, 2008.

SESINI 1942 : Sesini Ugo, « Per la storia delle notazioni italiane. Appunti sui neumi nonantolani », in *Convivium*, XIV (1942), p. 111-000.

SETTE 2007 : Sette Roberto, *Il Graduale di Castel Tirolo (sec. XII)*, Ph.D diss., Trento, Università degli Studi, 2007-2008.

SIEKERKA 2009 : Siekerka Ivo Hubert, « Tabula neumarum nel cod. Ivrea, Bibl. Cap. CVIx », *Studi Gregoriani*, XXV (2009), p. 121-137.

STÄBLEIN 1975 : Stäblein Bruno, *Schriftbild der einstimmigen Musik*, Leipzig, VEB Deutscher Verlag für Musik, 1975.

SUÑOL 1935 : Suñol Grégoire M., *Introduction à la paléographie grégorienne*, Paris-Tournai-Rome, Desclée & Cie, 1935.

TENTORI 1994 : Tentori Paolo, *Il proprium Missae del Messale di Civate (cod. 2294 N. A. D 127 Bibl. Trivulziana di Milano)*, Lecco, Novantiqua Multimedia, 1994.

VAN DIJK & HAZELDEN WALKER 1960 : Van Dijk S.J.P. & Hazelden Walker J., *The Origins of the Modern Roman Liturgy. The Liturgy of the Papal Court and the Franciscan Order in the Thirteenth Century*, Westminster, Maryland, Newman Press, 1960.

VARELLI 2008 : Varelli Giovanni, *I codici ed i frammenti musicali del fondo Polironiano della Bibl. Comunale Teresiana di Mantova*, B. mus. diss., Cremona, Università di Pavia, 2008.

VECCHI 1953 : Vecchi Giuseppe, « La notazione neumatica di Nonantola. Problemi di genesis », in *Atti e memorie della deputazione di storia patria per le antiche provincie Modenesi*, Serie VIII, V (1953), p. 326-331.

VENTURINI 2007 : Venturini Laura, *Frammenti musicali di pergamene all'Archivio di Stato di Lucca: storia e catalogo degli antifonari*, Pisa, Ed. ETS, 2007.

WAGNER 1905 : Wagner Peter, *Neumenkunde. Palaeographie des gregorianischen Gesanges nach den Quellen dargestellt und an zahlreichen Facsimiles aus dem mittelalterlichen Handschriften veranschaulicht*, Freiburg, Switzerland, O. Gschwend, 1905.

Liturgical books and book production in the thirteenth-century diocese of Chartres: the case of Biblioteca Apostolica Vaticana, Vat. Lat. 4756

INTRODUCTION: THREE CAVEATS

Every region in Europe had its own notational style, and musical notation changed depending on developments unique to each time and place; furthermore, what survives will determine how much can be known about any place.¹ Although earlier neumatic notations have been intensely studied, there has been comparatively little attention to the development of square notation in the course of the twelfth and thirteenth centuries, or to the reasons for and effects of this large-scale transformation of music writing. John Haines has explored the historiography surrounding the development of square notation and has sought to address the subject in a variety of ways, including bringing the scholars together who have written for this volume.² The lack of attention to the evolution of square notation has a parallel in the neglect of late book hands, especially those varieties known as textualis.³ Just as later hands and notational styles have been seriously neglected, so too have later liturgical books themselves, this a reflection of a lack of interest in late medieval plainsong and its performance practices more generally. Book hands from the thirteenth century are notoriously difficult to date and place, with similarities between hands seeming to outweigh peculiarities. The trajectory of scribal text hands in a particular region, when studied alongside notational developments, can offer a fuller picture of any noted manuscript than concentrating upon one or the other dimension alone. Just to

1. The studies of various notational dialects found in introductions to the several volumes of the *Paléographie musicale* are fundamental. CARDINE 1982 (first published in 1968 in Italian, and subsequently as a monograph in French and English), offers a close comparison of the St. Gall and the Messine neumatic traditions; STÄBLEIN 1975 provides excellent plates and discussion of developments. Leo Treitler's collection of essays provides an overview of his analyses of the development of notation in Western Europe; see TREITLER 2003.

2. See HAINES 2008.

3. DEROLEZ 2003 has picked up where Gerard Leftinck left off, providing an essential beginning study for categorizing scripts by region and for tracing developments, letter by letter, abbreviation by abbreviation. See LIEFTINCK 1954. This collection also includes essays by Bernard Bischoff and Giulio Battelli. For work with French manuscripts, the most useful tool of all for dating and placing is SAMARAN & MARICHAL 1959.

begin to sort out the situation in any particular place is a daunting task, and when it comes to late Latin book hands and chant notation, the work is just beginning.

My own paper here grows out of initial thoughts about the transformation from neumatic to square notation in the diocese of Chartres, with a close look at one important manuscript in the context of developments in this region, with regard to script, notation, and diocesan liturgical book production in the first half of the thirteenth century. This work addresses a generally acknowledged need for more close studies of individual notational styles and of particular manuscripts. Such studies are especially needed in cases where one can find actual scriptoria, and explore the various ways in which notation was changing as a result of new scribal practices and the hiring of scribes from outside the monastery or cathedral to perform increasingly more of the work. When it comes to Chartres, the scriptoria have not been studied, and the problems are especially complicated as a result. I begin with three caveats as a preface to an overview of notational styles and scribal practices. The overview will create context for the heart of the work, a study of the sole surviving notated manuscript containing the office of the cathedral of Chartres, Vatican City, *Biblioteca Apostolica Vaticana*, vat. lat. 4756, only the winter part of which is extant.

First, the diocese of Chartres in the Middle Ages was enormous. Titles of the archdeacons, among the dignitaries of the cathedral chapter in the twelfth century, allow for appreciation of the extraordinary vastness of this geographical unit and the needs the diocese had for liturgical books. In addition to the archdeacon of Chartres, there were five other archdeacons: of Poissy, of Châteaudun, of Blois, of Dreux, and of Vendôme.⁴ It seems there was a considerable variety in styles of scripts and notation in the methods of book production just as there must have been several scriptoria. How books were produced for the use of this diocese is a question that can be asked here, but certainly not answered. Would that scholars had a better understanding of how the particular liturgical and musical understanding of one cathedral was regulated and promulgated throughout an entire diocese; would, indeed, that there were more studies generally of diocesan book production in the later Middle Ages.⁵ The ways in which the liturgy of a cathedral was respected and used in affiliated churches varied from place to place, and with the lack of studies of diocesan books, it is not possible to generalize. We know that monastic institutions were often liturgically independent of the liturgical uses of the diocese in which they were located, but the extent to which this was true varied greatly.⁶ It is a different matter to study the books of a single monastery, with a particular liturgy and specified history than it is to study the liturgical practices and book production of an enormous diocese. Where were cathedral books produced in the later Middle Ages; who supervised the work? How were books distributed so that every church and parish had what it needed for liturgical celebration? For the most part, we simply do not know.

The second caveat has to do with politics. The Thibaudian dynasty ruled in the region from the early tenth century forward. They were named for the root of the family tree, Thibaut the Trickster (d. 977), who was a strong man of the Robertians. Thibaut

4. For study of the persons who held these offices in the Middle Ages, see MERLET 1900.

5. There are many studies of liturgical books from particular monasteries, including my own study of St. Victor, with emphasis on the sequences; see FASSLER 1993-1. For book production in the medieval diocese of Nidaros, see KRUCKENBERG & HAUG 2006; and for the archdiocese of Prague, VLAHOVA 2000.

6. BOYNTON 2006 points to the ways that liturgical practices at Farfa, although influenced by Cluny, retained local features. Augustinian canons tended to be more dependent on diocesan traditions that were other monastic institutions. McLAUGHLIN 1995, p. 155-166, has demonstrated the dependence of this house of Augustinians on diocesan liturgical practices, in spite of frequent minor variation.

was rewarded with vast tracts of land for his support in those decades before the final overthrowing of the West Frankish Carolingians in the mid tenth century, including Chartres, Blois, and Tours. He had married Leutgard of Vermandois, who was earlier betrothed as a child to William Longsword of Normandy. Through this woman, Thibaut's heirs eventually succeeded to the lands that came to make up the county of Champagne as well. The Thibaudians also ruled Tours in the late tenth and early eleventh century; it was lost to the Angevins in 1044. In spite of this particular diminishing of the family's traditional lands, they continued to thrive throughout a broad geographical range: from the early eleventh through the mid thirteenth centuries the same family ruled in Chartres, in Blois, and in the Champagne, and this helps explain why there are so many Chartrain books in Provins and in Troyes, and why the Cistercians on the one hand, and Peter Abelard on the other, had the Thibaudians as their patrons. The apex of Thibaudian power and influence came in the mid-late twelfth century, when the Thibaudian Steven was king of England; his brother Henry was Bishop Winchester; and a third brother, Thibaut IV, was Count in Chartres, Blois and Champagne. Later in the twelfth century King Louis VII finally produced a male heir, Philip, by the Thibaudian Adelia of Champagne, daughter of Thibaut IV. As Louis VII died in 1180, when his son was only fifteen years of age, the young king's mother and his uncle, William, first bishop of Chartres, then archbishop of Sens, and finally archbishop of Reims, were powerful influences at court for some years.⁷

The Thibaudians were a true 'channel family', and the extent to which they relied on a common fund of scribes and illuminators for their manuscript campaigns has never been studied. Art historians have recently argued that Chartres was important for the production of deluxe illuminated Bibles and other books in the twelfth century; Patricia Stirnemann calls it the greatest such center of the mid twelfth century.⁸ She has recently prepared an exhibit of Bibles and other deluxe books in the library at Troyes and shown the close relationship between a bible owned by count Thibaut IV and the great bible named for Bernard of Clairvaux.⁹ As Marcel Langlois pointed out long ago, Chartres was a great city for scribes, the most famous being the late eleventh-century charter producer, the Benedictine Paul of St. Peter's in Chartres.¹⁰ The writing desks and implements carved in the mid-twelfth century on the southern archivolts of the west portal were designed by men who knew scholars, scribes and illuminators from direct experience (see fig. 1).

A third complexity is of a different kind from the two mentioned above. The library at Chartres was one of a handful of medieval European libraries intact since the Middle Ages, and one of the richest in its manuscripts.¹¹ On May 26, 1944, the center of the town was

7. Significantly less attention has been paid to the Thibaudians than to other major medieval families from northern France; their territories were far-flung and slowly reverted to the crown over the course of the thirteenth and early fourteenth centuries. For recent work on the northern branch of the family in the early twelfth century, see LOPRETE 2007; FASSLER 2010 offers an overview, that includes attention to the formation of the family and bibliographic references. The Champenois branch of the family in the later Middle Ages has been thoroughly studied by Evergates, who has edited the familial charters (Toronto : University of Toronto Press, 2009), and produced a highly successful synthesis in EVERGATES 2007. LIVINGSTONE 2010 is a study of many of the lesser nobility that were important in the governing of the Cathedral of Chartres. ARMSTRONG-PARTIDA 2005 demonstrates the ways women in the twelfth and thirteenth centuries wielded power in the region.

8. STIRNEMANN 1997.

9. Hundreds of manuscripts from the library in Troyes will be or are available for consultation on line; the first part of the project has been to digitize and make available the some 900 manuscripts from the library of Clairvaux.

10. LANGLOIS 1905.

11. See OMONT 1890.



Figure 1. A Scribe Who May Represent Donatus. Chartres Cathedral: West portal, southern door, right archivolt, mid-twelfth century (photo: Henri de Feraudy).¹²

bombed and the library was destroyed, with only a few treasures surviving, now mostly in carbonated and crumpled states, if they have been saved at all. That there were Chartrain books in other libraries became more important than scholars ever imagined it would be. Scholars now hope to use modern technology to read and restore these lost sources.¹²

The low rate of survival of liturgical books after the fire is indicative of the general state of the library as a whole. The only surviving noted missals and graduals from Chartres are either in other libraries (Provins, Bibliothèque Municipale, ms. 12, Paris, Bibliothèque nationale de France, lat. 7310, or Troyes, Bibliothèque Municipale, ms. 893, for example) or in filmed or photographed copies made before the fire such as Chartres, Bibliothèque Municipale, ms. 520 (edited by David Hiley) or the exceedingly precious early fourteenth-century gradual from the Augustinian abbey of St. John in the Valley, Chartres, Bibliothèque Municipale, ms. 529.¹³ The study of music in Chartrain office books is even more problematic than for the Mass; would that there were even a handful of notated medieval books. As reported above, the only surviving noted breviary representing the use of Chartres cathedral is in the Vatican library, vat. lat. 4756, and only the winter half of the book. There are several later sources containing the office texts, but none of them are noted, and there are some fragments in various other collections, but no complete antiphoner or noted breviary survives.

12. For an overview of the work in progress, see POIREL 2007; on line at 'Ædilis, Actes, 13' <<http://aedilis.irht.cnrs.fr/irht-avenir-tradition/manuscrits-chartres.htm>> (accessed December 2010).

13. For a manuscript list, see FASSLER 2010, p. 369-375. The collection of sequences found in the volume was transcribed from Chartres, BM, ms. 529.

The foremost guide through the complexities arising from the state of the Chartrain sources is the great archivist, art historian, musicologist and liturgiologist, Yves Delaporte (1879-1979), whose writings and whose work as an early photographer provide invaluable evidence for the study of Chartrain manuscripts.¹⁴ His annotated edition from photographs of the now lost thirteenth-century ordinal, Chartres, BM, ms. 1058, along with his detailed article in *Revue grégorienne*, established the foundation for the study of chant and liturgy in the diocese of Chartres. For the sake of comparison in the twelfth and thirteenth centuries we have had only his handwritten copy of Châteaudun, Hôtel-Dieu, ms. 13, a precious twelfth-century ordinal also representing the use of Chartres Cathedral.¹⁵ It is thanks to Delaporte and his active camera that we have most of the photographs of fragments and individual pages, constituting volume seventeen in the first series of the *Paléographie musicale*.¹⁶ The 'Good Luck' horse-shoe-shaped page holder that appears so often in his photographs is especially ironic given the extreme bad luck met by the treasures he photographed, virtually all of which are now lost. The original glass plates of Delaporte's extraordinary collection of photographs are now found in the Diocesan Archive of Chartres; there too are his notes on every significant liturgical book from the cathedral chapter found in the Municipal Library (the manuscript list in Fassler, *Virgin of Chartres*, indicates which manuscripts were inventoried by Delaporte).¹⁷ In addition to the photographs taken by Delaporte, there is also a small collection of stray parchment pages from liturgical books in the *Archives Départementales d'Eure-et-Loir*, most dating from the fifteenth and sixteenth centuries. These remain mostly unstudied.¹⁸

Using Delaporte's collection of photographs assembled in volume seventeen of the *Paléographie musicale* and the few photographs found in his book on illuminated manuscripts from Chartres,¹⁹ I will proceed from the late tenth century to the eleventh century, and then on to the twelfth and thirteenth centuries, with attention to both script and musical notation. This cursory overview will provide the context for a closer look at Vatican Library, lat. 4756. The way the manuscript was compiled, the handwriting styles, and the transformation of earlier styles of neumation into a nascent square notation are subjects of particular interest in this source.²⁰

14. For his voluminous writings, many of which are difficult to obtain, see BIZEAU 1969. DELAPORTE 1957 remains the standard work on the subject. Claudine Lautier is now preparing an edited volume of his shorter works.

15. The original manuscript has been found recently in Châteaudun, and is now being restored.

16. *Paléographie musicale XVII*.

17. See FASSLER 2010. Canon Pierre Bizeau died in 2009 and was not replaced as archivist; there is some concern among the scholarly community as to the state of this invaluable collection. Copies of many of Delaporte's photographs are also found in the Médiathèque of Chartres (the new name of the Bibliothèque Municipale).

18. Delaporte photographed one eleventh-century missal fragment with Breton neumes from this collection: see *Paléographie musicale XVII*, p. 37 and cahier 10, n° 8. Fiona Edmond is now preparing an annotated catalogue and study of the surviving musical manuscripts and fragments of Chartres for a thesis at the Sorbonne.

19. DELAPORTE 1929. One should also consult the excellent facsimile edition of the noted missal Chartres, BM, ms. 520 prepared by David Hiley, as well as select photographs of the ordinal, Chartres, BM, ms. 1080 (see HILEY 1992), as printed in FASSLER 2010, p. 443-446 and below.

20. I have seen this manuscript, and held the small, fairly tightly bound book in my hands. Susan Boynton once looked at it for me as well, when I could not come again to Rome. But this was years ago, and long before I began my present closer study of it. In order to finalize the work, I needed to spend time with the manuscript again, but was not able to do so because of the three-year closure of the Vatican library. It re-opened in September, 2010, but not in time for me to make a visit; Peter Jeffery was able to view the manuscript in

THE DEVELOPMENT OF LATER NOTATION IN THE DIOCESE OF CHARTRES:
THE ELEVENTH AND TWELFTH CENTURIES

Eleventh-century examples from Delaporte's collection of photographs allow for identification of basic characteristics of Chartrain neumation. The first example (not photographed by Delaporte but thankfully still extant) is found in a tenth-century manuscript in Orléans, Bibliothèque Municipale, ms. 148, a collection of writings by Ambrose and other church fathers. Late in the tenth century or in the early eleventh century, someone added a sequence for St. Carileff, who was the patron saint of the chapel of the Thibaudian family in Blois. The sequence *Clare rutilans* is in rhythmic style.²¹ With its highly intellectual musical content, it transports the reader to the scene in and around Chartres in the early eleventh century when Fulbert was bishop and Sigo was cantor, and music theory was taught from the *Musica Enchiriadis*, as found in an eleventh-century copy from Chartres, BM, ms. 130 (which survives in photographs).²²

The notation for the piece is not precisely heighted, and so the pitches cannot be securely transcribed; because the piece is syllabic, many note shapes are not represented. Yet it is a good place to begin to observe some of the characteristics of neumatic notation as practiced near or in Chartres in the early eleventh century. The *virga* has a thickened head, and although this is not always the case in the examples we will study here, it is a characteristic type. The example contains both the *punctum* and the *tractulus*, one a point and the other a short line that often slants slightly downward to the right. This latter shape drives formation of the *pes*, which has a long foot, as can be seen on the first word of the piece, *clare*. The *clivis* in this example is one of two types found in the region in this period: sharply pointed or rounded hair-pinstyle (as in *melodia*, line one); and the other, the Lotharingian shape that resembles a tironian 'et' sign (not seen in this example). The use of the latter can make reading difficult because it looks like a dramatic *virga*; in fact, the more pronounced the head of the *virga*, the more problematic the 7-shaped *clivis* might be. The *oriscus* in combination with other notes in this sequence is a feature that can also be found throughout northern France. Three elements make up a kind of *pressus major*, seen here on the words *sympiphonia* (line 1 in fig. 2), *metricata* (line 2) and *revoluta* (line 3). In all these cases the neume is cadential, falling on the third syllable of a four-syllable word that occurs either before a caesura or at the end of a line.²³ The same shape occurs in other sequence settings of the period, for example in the Easter sequence *Fulgens preclara*. The penultimate syllable of these words apparently is held longer to accentuate the rhythm, and closes out by descending lightly to the final syllable of the word. The poetry of *Clare rutilens* is in what has been called a 'transitional' form, with fairly sharply marked short phrases that are nuanced and interpreted by the music; the scribe has also attempted to show the rises and falls of pitch, although not precisely. The piece reminds us that syllabic repertoires do not need or use many kinds of neume shapes, and that a work like this, with the addition of a dry point line, might contribute to the development of squarer notational forms more directly than would the neumes used for more melismatic chants.

January 2011, and count the leaves of the quires for Table 2 in this essay; I could see the quire signatures on the microfilm, but could not be sure of the foliation. I am deeply grateful to him. I am also thankful for the advice of my colleague David Gura, Special Collections Curator, at the University of Notre Dame.

21. The text is edited from the manuscript in DREVES 1891, p. 150-151.

22. On the cantor Sigo, see FASSLER 2010, p. 96-106.

23. On the *pressus major*, see CARDINE 1982, p. 124-131.

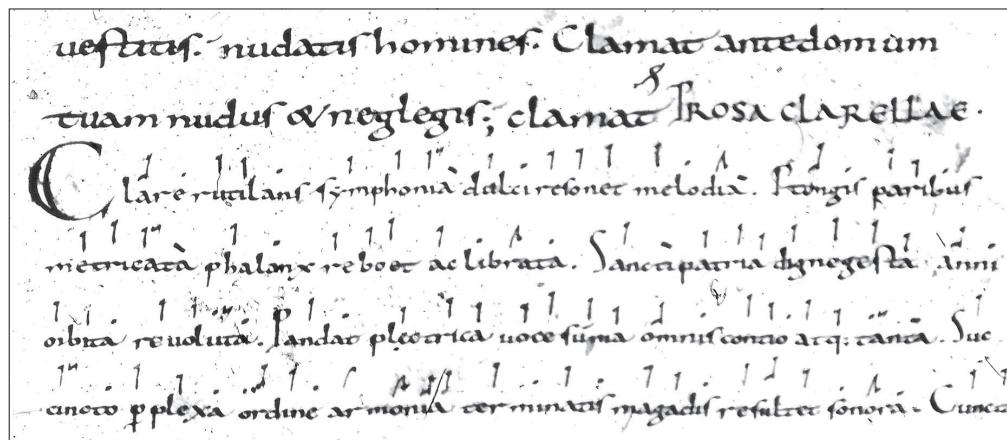


Figure 2. The opening of *Clare rutilans* for St. Carileff, as found in Orléans,
Bibliothèque Municipale, ms. 148, fol. 31^r.

There are more shapes to examine in a reporsory for St. Giles, a work added as part of a *historia* for the saint in an eleventh-century hand at the end of the martyrology-necrology of Chartres, BM, n.a. 4.²⁴ First, to compare the simplest neumes: the club-headed *virga*, the *punctus* and the *tractulus*, the long footed *pes*, all as found in the sequence for St. Carileff, are present. There are both kinds of liquefent *pedes*, what Cardine calls the 'augmented' form; here, for example, on the -*ten* of *cum potentis* in the last line, and the diminished on the *con-* of *confessor* in the first line in the responsory *Fidelis Christi*, as seen in the third photo of Delaporte's group in cahier 10. The three-member neumes are derived from the simple ones, as would be expected: the *torculus* is a rounded *clivis* with a left-curving, hooked left descender; the *scandicus* is two *puncta* stacked one on top of the other with a *virga* on top, unless rendered liquefently: then the neume looks as in the end of the second line up, with one liquefent *pes* ligated with another, an ingenious solution. There is no *porrectus* in this example, but several instances of a modified *climacus* made out of a *pes* and two downward slanting *tractulus*. The *oriscus* is larger in size here than in some examples, and looks almost like a Tironian 'et' with a short finial rising up on the left side as in the -*sti* of *Christi* in line one, which consists of a *torculus*, an *oriscus*, and a *punctum*. The *oriscus* here follows Cardine's rule for this neume: it repeats the pitch just before it, and is followed by a lower pitch.

Chartres, BM, ms. 89, a tenth-century manuscript from St. Peter in Chartres, contained several additions, including an office for St. Maur written in an eleventh-century hand. The notation is quite different in several of its aspects from that in Chartres, BM, n.a. 4, for St. Giles. This is an office not found in the liturgy of the monastery of St. Peter's in Chartres; perhaps it was at Angers, the capital city of the Thibaudians' most detested rivals, and where one of Fulbert's students, Bernard, was cantor in the mid-eleventh century. The notation shows a *pes* that is of the type mentioned above, with an exaggerated foot: thick

24. Chartres, BM, n.a. 4, stolen from Chartres in the late eighteenth-century, was returned after the fire of 1944. For an edition of the necrology, and a copy of the neumes of the St. Giles office, see MERLET & CLERVAL 1893; photos of the office are found in *Paléographie musicale XVII*, cahier 10, nos. 3-7. The manuscript is inventoried and discussed in FASSLER 2010, p. 96-103. On the St. Giles office found in Chartres, BM, n.a. 4, see GOUDSENNÉ 2008.

and square with a finial to the right, and sometimes slightly splicated. We cannot say for sure that this notation is from the diocese of Chartres just because it is a fragment in a Chartrain book, but its notational style surely falls in line with the two other eleventh-century examples discussed here.²⁵

Chartres, BM, ms. 23, was a tenth-century Gospel book. In two places neumes were added in the eleventh century. In one location, the passion according to St. Matthew was provided with abbreviations for musical instructions: *l* for *leniter*, *s* for *sonando*, *c* for *cito* and *g* for *gravando*.²⁶ The pages shown in the seventeenth volume of the *Paléographie musicale* are for the genealogy of Christ, Matthew 1:1-18, read on Christmas Eve and on the feast of Mary's Nativity, a text of special significance at Chartres cathedral. Singing in this fashion would have demonstrated dramatic flexibility in the use of intonation formula. The neumation of tones and the relationship of song to speech is an aspect of notational study that will always bear fruit.

Three of the most important eleventh-century fragments from Chartres contain polyphonic settings of chants, and these have been much studied, most recently by Wulf Arlt.²⁷ The fragments are found in Chartres, BM, mss. 4, 109 and 130, all of which were photographed by Delaporte and included in volume seventeen of the *Paléographie musicale*. Chartres, BM, ms. 4, presents an eleventh-century notating hand that operates in a somewhat different way from what we have seen before: some of the *virgae* have virtually no heads at all; there are frequent *puncta*; but no *tractulus*. The *pes* has the dramatically large foot observed in examples above, but is missing its head. The *cantus* voices provided for three Alleluias in Chartres 130 are inscribed by someone closer to the traditional understanding of eleventh-century Chartrain neumes, whereas the *discantus* parts are written in a somewhat different style, especially to be seen in the *porrectus*. The discant may have been written by a musician who was not trained in the diocese of Chartres. The fragment, Chartres, BM, ms. 109, which Delaporte dates from the twelfth century, was used as a guard-leaf, and may have been part of a polyphonic collection. The importance of the polyphonic settings in Chartres can be gauged by mentions of them in both the twelfth- and the thirteenth-century ordinals, and by a fourteenth-century catalogue from St. Peter's of Chartres that refers to a *Liber cantus et discantus*.²⁸ At least one musician in Chartres in the mid-twelfth century had the capabilities to prepare such a book: Fulcaudus, called an *organista*, was witness to a charter dated to 1138-43, written at Josaphat, a church founded on the outskirts of Chartres by Bishop Geoffrey of Lèves and by his brother.²⁹

The twelfth century must have been a transitional period with regard to musical notation in Chartres, as it was in most other places in northwestern Europe. Yet because the surviving examples are so few from Chartres, this progression cannot be documented with surety. Chartres, BM, ms. 579, was a breviary from St. Peter's abbey, prepared for neumation that was never added. Nonetheless, in a few places someone added neumes. These are small and un-heightened, and show few characteristics that would distinguish them from late eleventh-century neumes. The pages of Chartres 579 that Delaporte photographed do show that the arrangement of great responsories for the Nativity of the

25. *Paléographie musicale XVII*, cahier 4, nos. 5-6. The office is also found in Paris, BnF, lat. 12044, an early twelfth-century antiphoner from the Benedictine abbey of St. Maur-des-Fossés; the chants are written on a four-line staves in this source, and can be transcribed. Those in Chartres 89 are rendered in unheightened notation.

26. *Paléographie musicale XVII*, cahier 1, nos. 4-6.

27. ARLT 1993.

28. See OMONT 1890, p. xxxi, with reference to Chartres, BM, ms. 1036.

29. On Josaphat, see FASSLER 2010, especially p. 184-186

Virgin was different at St. Peter's than in the Cathedral at the same period, an important piece of information serving to remind us that there was liturgical variation between various monastic practices and the churches that followed the cathedral within the diocese. If the liturgy of Chartres cathedral shifted in the course of the eleventh century to put greater emphasis on the cult of the Virgin, then the liturgies of St. Peter's and of the cathedral would have been less and less synchronized.³⁰

The most important surviving Chartrain musical source from the twelfth century is a notated missal from the Abbey of St. Peter's in Chartres: Troyes, BM, ms. 894.³¹ It is a beautifully made manuscript, with some exquisite illuminations, and would greatly repay careful study. The neumes as written in the main (but not the only) hand, could be instructive for understanding the development of twelfth-century musical notation, but no one has tried to date the manuscript as yet. The *tractulus* are short and thick, and their characteristics carry over into the formation of the *virgae* and the *pes*. The big or lower foot of the *pes* is shorter, and thicker, too; the upper member of the *pes* more generally resembles the foot. When neumation changes, it seems to do so radiating out from the basic elements to the remaining features of the script, as a study of this source in context demonstrates. In Troyes 894, the character of the neumes has changed from those observed in eleventh-century sources: the noteheads are much thicker than the eleventh-century examples, and the old distinction between *punctum* and *tractulus* seems to have blurred, creating a squarer note-head in many instances. This square-like neume may have evolved out of the truncated and thickened *tractulus*. However, before calling the developments at Chartres innovative, a further study of this source and its context is in order. One of the most important differences that must be studied in any diocese is that between books produced for or in monasteries and books produced in cathedral scriptoria or for use in diocesan churches. In any case, the neumes in Troyes 894 are not precisely heightened, although the melodic contours show the beginnings of this practice. Regardless of when in the second half of the twelfth century the manuscript was produced, it demonstrates a crucial stage in the development of square neumes in the diocese of Chartres.

An intriguing example of twelfth-century neumation from Chartres is that of the two pages from a monastic breviary used as binding materials for a fourteenth-century Dominican missal, Chartres, BM, ms. 525.³² The fragment is very difficult to see in the old photograph, but we do have Delaporte's description: 'the notation consists of *points liés* ['linked notes', that is, neumatic notation] arranged against the Chartrain staff. But when the melody has been memorized well enough, as in the case of responsory verses, there is no staff'.³³ With this precious fragment, we can see that the idea of the Chartrain staff was coming in in the later twelfth century, and could be used sporadically within a particular manuscript.

THIRTEENTH-CENTURY LITURGICAL BOOKS IN CHARTRES: SCRIPTS AND NOTATION

Surviving sources representing the cathedral in the early decades of the thirteenth century are more plentiful than in the twelfth century, perhaps because there must have been an active

30. *Paléographie musicale XVII*, cahier 9, nos. 6-9.

31. Many of the manuscripts found in the library of Troyes have recently been put online, especially those deluxe books that once belonged to Cistercians in the region. Unfortunately, Troyes 894 is not among the digitized sources as of November 2010.

32. Chartres, BM, ms. 525, itself was not photographed and lacked notation.

33. *Paléographie musicale XVII*, p. 31, and cahier 7, no. 9.

campaign to replace books destroyed after the cathedral was burned in 1194. A tentative trajectory can be established by studying the notation and handwriting styles as found in photographs of lost sources and Chartrain manuscripts in other libraries that apparently post-date the fire, and hence were copied in the early to mid thirteenth century. Because feasts came in slowly and inconsistently throughout the diocese of Chartres, the presence or absence of feasts cannot be used for dating as they might be in the study of other narrowly circumscribed monastic liturgical books. Instead, scribal and notational developments are crucial to placing books containing this liturgical and musical practice within a stream of development. Even though the stream is muddy, it is better to have it than not.

A manuscript apparently from around the turn of the century is the Chartrain pontifical Orléans, BM, ms. 144, which was later adapted for Orléans.³⁴ The pontifical is beautifully illuminated and carefully written, but most unfortunately the notation was never added to the texts that were set up for it. The hand in the samples published by Leroquais shows both earlier and later paleographic features characteristic of the opening of the century. In this manuscript, there is a mixture of the ampersand and the Tironian *et*; of the tall or Carolingian *d* and the uncial *d*. One of the most archaic features of this early thirteenth-century script is the use of cedilla on the *e* to indicate an *ae* letter combination. Chartres cathedral was generally not open to liturgical innovation in the early thirteenth century. As the cathedral canons had lost their magnificent edifice to fire and were in the process of rebuilding, it seems they valued tradition in their liturgical music and in texts, and this is reflected in the books themselves and their scripts and notation. Delaporte evaluates the conservatism of Chartrain liturgical books and their script and notation, saying that he knew of seventeenth-century manuscripts written in Gothic script, and of thirteenth-century books that reflected a pure twelfth-century liturgical state.³⁵ Orléans 144 suggests that the styles of script chosen for deluxe pontificals may be even more conservative than would be found in chant manuscripts designed for humbler purposes. A comparison with another source that may be from the early thirteenth century makes this point: Rome, Biblioteca Angelica, ms. 435 (with some leaves also in Rome, BA, ms. 123), is a Chartrain proser-troper, containing sequences and some ordinary tropes; it is a relatively simple book, surely not made for a bishop (see Pl. 8). The letters appear uniformly of the early thirteenth century, with uncial *d* used throughout and round *s* at the ends of words; there is little fusion or even touching of bows. The open *g* is of a style very often seen in Chartrain manuscripts throughout the early decades of the thirteenth century: below the bow is a curved tail that comes from right to left, and forms a fairly flat line underneath the bow. The neumes found here show little sign of 'squareness'. Rather, the scribe uses a club-shaped *virga* in the company of *puncta-tractulus* that are shaped like small diamonds; sometimes the scribe uses this to make the head of the *virga* as well. The flourishing of the capitals is very primitive compared to the styles that would come to prevail in the second decade of the century in Chartres, and the F-clef is made with two strokes rather than three. The repertory contains several late-style sequences, and may reflect the upgrading of the cults of the saints then taking place in Chartres while the new cathedral and its glazing program were in process in the early twelfth century.

A nearly complete photographic record survives of an early thirteenth-century noted missal, Chartres, BM, ms. 520, edited in facsimile by David Hiley.³⁶ Chartres 520 has

34. LEROQUAIS 1937, p. 252-260.

35. See DELAPORTE 1953, p. 221.

36. HILEY 1992.

two main text hands, and in both instances these also write the accompanying chant texts. In the case of the first hand (Hiley's hand A), the cast of the letters shows relatively little shading. Tall *s* is used at opening and closing of words; tall *d* is found throughout. The letter *g* is open, sometimes with a hairline finial running off the bottom. Tall letters often have a short flat-line top; ascenders poke only slightly above the lower letters and are generally very short, giving all letters a uniform cast. The right bar of *a* has a short hairline that curves to the left; the bow of *a* may be somewhat angular. When the chant texts are written, the scribe sometimes uses the Uncial form of the letter *d*. Hand B has a somewhat later cast to the letters, more shading on the minims, and the repertory in general is slightly later as well, with more sequences that date from the mid to late twelfth century or even the early thirteenth century, as in the case of *Mater matris domini* for St. Anne, which was established at Chartres in c. 1205.³⁷ As with hand A, hand B, which takes over on fol. 364, also copies chant texts. Letters are similar: tall *d* used throughout; *et* is usually written out; neither ampersand nor Tironian *et* appear in either hand. Still, as will be characteristic in other books from the first half of the thirteenth century, later features are more prevalent in the smaller scripts used for the chant texts.³⁸ Comparison of a single scribal hand as a writer of lessons and prayers and then of the smaller texts for chants, often demonstrates that scribes of liturgical books employed two levels of script, the one more archaic than the other. Since hand B also copied the calendar, it is important that the feast of St. Anne is present there in his hand; the *sanctorale* in the newer section of the book was prepared to include this major new feast, also copied by hand B a few folios after taking over.³⁹

The neumes of Chartres 520 were displayed against dry point lines, but two of these were colored in what had become the Chartrain staff: a green line for *fa* (the pitch F) and yellow for *do* (the pitch C). These colors, added to dry point staves, continued to be used into the fourteenth century, long after the four-line red staff and square notation had been established in northern France. Colored lines, which had been advocated in the early eleventh century by the theorist Guido of Arezzo, were practical: if a scribe had placed small neumes on inked lines, they would have been more readily visible against colored lines than against black or brown ones.⁴⁰ Another feature of the Chartrain notational style can also be observed throughout Chartres 520: the F-clef is made distinctively, consisting of two slanted lines with a hook on top, or of three slanted lines. Observing the ways the F-clef is made is one of the best ways of distinguishing early thirteenth-century notational hands at Chartres. Hiley believes that the music notator was the same throughout the manuscript, although he sees some variation after hand B takes over.

The notational and script hands of Chartres 520 demonstrate that square-shaped neumes were already being used in the early thirteenth century in book production for the cathedral. But the neumes in Chartres 520 are removed in style from the square notation that was

37. The feast of St. Anne, fol. 389^v-391^v, was provided with an office and sequence at Chartres; and both were probably composed at Chartres. On the sequence, see FASSLER 2010 p. 344, and a translation and transcription (p. 393-4 and no. 7 in the anthology).

38. There are some Tironian *et* signs used in the sequence for St. Denis, and the troped *Pater Noster*. The sign curves to the left and reaches below the line, ending in a long seraph. Also note the double *-ii* of *hiis* in the *Pater Noster*, with two slashes, a later feature not seen usually in hand A. If this is indeed another hand, it may begin with the sequence *Gaude Prole* for St. Denis, and begin from fol. 322^v-323^v.

39. It is telling to compare the second page of the *Pater Noster* in the Hiley edition with the much clearer and larger photograph of this same page as found in *Paléographie musicale XVII*. As David Hiley explains (HILEY 1992, p. 7), his edition was made from microfilms made for Jacques Handschin and Bruno Stäblein.

40. On the slow development of the staff and its many manifestations during the Middle Ages, see HAINES 2009.

found commonly in Parisian liturgical books from the early thirteenth century. These Chartrain neumes are relatively small, and do not fit comfortably within the dry point lines they occupy. They give the appearance of being neumes that happen to be drawn on lines, rather than of neumes designed for a staff. The pages of the manuscript are ruled so that there are staves consisting of four dry-point lines; the note-heads are so small as to be difficult to read when displayed against the green F-line (especially in a photograph, which is all that survives). David Hiley has summed up the characteristics of the neumes, pointing to the fact that the *virga* sometimes has a rounded rather than a square shape, especially where it joins the stem. Characteristic of Chartrain neumes is the liquefent *pes*, the *epiphonus*. It is formed by adding a thin ascender to the right of a *punctum*. Both b-flat and b-naturals are regularly used. The *climacus* is made with two oblique descending notes following a *virga*. Sometimes this diamond shape is retained in syllabic settings of sequences, demonstrating that musicians wrote in detached notes, but continued to think neumatically.

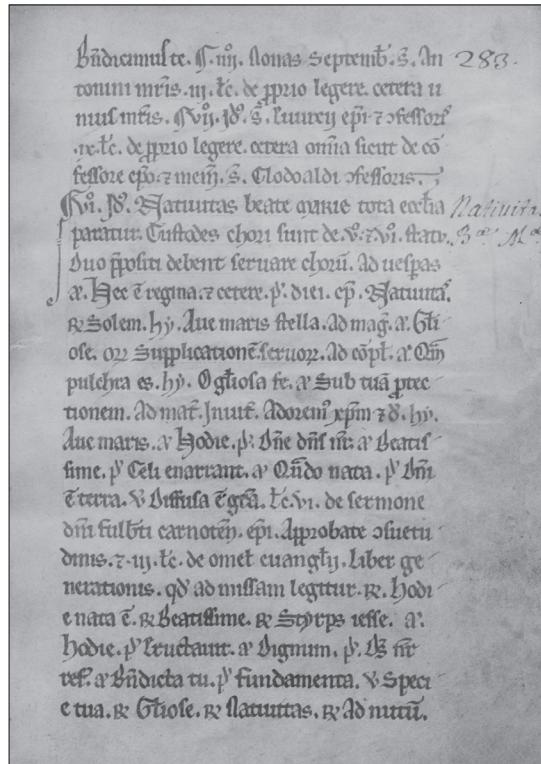
Chartres, BM, ms. 583 was an early thirteenth-century missal from Chartres; space was left for notation but for the most part it was not provided. Delaporte photographed and published one leaf with notation, however, and the very close similarities between the notation, the script hand, and the flourishing to those of Chartres 520 help establish that we are looking at two chronologically close books produced for the cathedral of Chartres, and that these books belonged to the work of a particular scriptorium.⁴¹

If Chartres 520 and 583 offer good starting points for a trajectory of scribal practices as found in earlier thirteenth-century cathedral books from Chartres, then Chartres, BM, ms. 1058 appears to represent a slightly later stage (fig. 3). The book, published in a modern edition, survives in photographs now housed in the Diocesan Archive of Chartres. Delaporte dates Chartres, BM, ms. 1058 to around 1230, based on its contents and on his knowledge of the liturgy and of the history of the cathedral. The hand that wrote this sample (Feast of the Nativity of the BVM), indeed, does offer later features than those employed by the scribes of Chartres 520. Round *s* is used consistently at the ends of words; there are no ampersands, but a crossed Tironian *et* is employed throughout; the letter *g* is closed with a tight, round bottom loop; *a* is of two types, tall *a*, with a folded over loop on top, and *a* with a curved top. The Uncial *d* is used consistently, with a very occasional tall *d*. The script is much more compact than that found in Chartres 520: bows of letters often touch and occasionally fuse. The *ct* ligature is breaking down, another later feature. The club-shaped ascenders are stylistically different from the capped ascenders found in Chartres 520 and Chartres 583.

A style of notation chronologically parallel to Chartres 1058 can be found in Chartres, BM, ms. 528. This was a liturgical collection with two parts, one from the thirteenth century and the other from the fourteenth, examples from which were photographed by Delaporte and published in *Paléographie musicale*, vol. 17, cahier 8, n^os 2-3. It can be seen that the scribal hand from the thirteenth-century section of Chartres 528 is very close to that found in Chartres 1058, but in a somewhat earlier state, employing ampersands instead of the Tironian *et*. Some of the distinctive features that are similar in both scripts include a *g* with cross-over bottom loops, club-shaped ascenders, a foot on *p*, and two kinds of *a*, both open and tall with closed top loops. The notation in Chartres 528 compares to that found in Chartres 520, with small notes, but the note heads are slightly squarer in appearance. The oblique neumes that formed the *climacus* in Chartres 520 have become nearly diamond-shaped, and this note shape is frequently featured in the recitation tones depicted in the sole surviving photograph of this part of the now lost manuscript.

41. See *Paléographie musicale XVII*, cahier 9, no. 10.

Figure 3. Chartres, BM, ms. 1058, p. 283
From the Virgin's Nativity
(photo: Delaporte and Henri de Feraudy).



Provins, Bibliothèque municipale, ms. 12 is a thirteenth-century gradual that contains the chants for the mass liturgy of Chartres cathedral, including its proper tropes.⁴² It does not contain the feast of St. Anne, which was instituted in 1206, as part of the main corpus of the work; but it does include the sequence written at Chartres for this feast, *Mater Matris Domini*. The piece is found in a second series of sequences at the end of the book. Both series were copied in the main hand, which means that when the manuscript was prepared, both an apparently earlier and a later *libellus* of sequences were at the scribe's elbow; he also copied an earlier source or sources that did not yet contain the feast proper for the corpus of the book. Hiley has made a table of the sequences in Provins 12, and also indicated where each of them is mentioned in the body of the gradual itself.⁴³ It is telling to compare the sequence collections of Chartres 520 to that of Provins 12, and to notice that several later works included in Provins 12 are not found in Chartres 520. This is a liturgical feature that may suggest either a later date for Provins 12, or that the book was prepared for a still unidentified church in the diocese of Chartres, or that the book was prepared for a person who wanted a representative Chartrain book.

The script and notation of Provins 12 also push it to later in the first quarter of the thirteenth century. The script is still conservative, but the frequent touching of bows, the tall *a*, the *g* closed by a seraph, the use of a crossed Tironian *et* and the dotted *i*, are generally later characteristics. The notation also has a later cast. The note-heads are much larger compared to the staff, and are short and blocky. This begins to look like square notation on

42. The manuscript has been studied by HILEY 1993, and by KARP 2001.

43. HILEY 1993, p. 242-246.

a Chartrain staff, but the characteristic Chartrain F-clef does not appear in this manuscript. Delaporte photographed a leaf of the Chartrain pontifical, Chartres, BM, lat. 195, which was studied by Leroquais.⁴⁴ Leroquais said that it dates to the mid thirteenth century⁴⁵, and Delaporte put it slightly later. The note heads in this leaf are mindful of those found in Provins 12; the script is similar but somewhat later. This source also did not use the characteristic Chartrain F-clef, but instead a clef similar to that found in Provins 12. The impetus in these musical scripts from the second or third decades of the thirteenth century is generally toward greater 'squareness', but with a great amount of variety. There is, as yet, no staff, but rather dry point lines with a green line for F and a yellow line for C; the staff looks much as it did in the late twelfth century, but it is used with consistency.

Examples in Delaporte's collection of fragments from the thirteenth century suggest that this was the period in which a four-line staff with square neumes appeared, although the lines might still reflect the Chartrain colors of green and yellow for F and C, respectively. He dates Chartres, BM, ms. 521, a missal from the Benedictine abbey of St. Peter in Chartres, to the thirteenth century.⁴⁶ Leroquais dates it to early in the thirteenth century.⁴⁷ Both on account of the script and the notation, mid century is probably better. The letter *a* is consistently tall and folded; the bows of Uncial *d* and *o* are completely fused; the *ct* ligature is broken; round *s* is frequent at the end of words. In fact the letters are closer to those found in Chartres 195, the pontifical that Delaporte dated to mid century. The notation in Chartres 195, too, is close to that of Chartres 521, except that note-heads in 521 are nearer to a classic form of square notation: there is no variation in these square note-heads, and they are used with hairline strokes to the right to indicate the *virga*, for example. They fit quite well into the three-lined staves, which have been ruled so that there are three lines for music and three lines for text. As in Chartres 195, the scribe of Chartres 521 did not use the F-clef of the earlier thirteenth-century Chartrain staff. The importance of the Carthusians in the twelfth century and the Dominicans in the thirteenth has been noted in the development of square notation.⁴⁸ The Dominicans came early to Chartres and established a house there by 1231; their close ties to several mid-century bishops could only have made their innovations in liturgical book production welcome.⁴⁹ But there are no surviving witnesses of Dominican liturgical books from Chartres, and the first examples that survive of full-blown square notation come from the Benedictines.⁵⁰

THE CHARTRAIN NOTED BREVIARY, WINTER ONLY:
BIBLIOTECA APOSTOLICA, VAT. LAT. 4756

The noted Chartrain breviary now found in the Vatican Library, vat. lat. 4756, the sole witness to the music of the office in the diocese of Chartres, is an exceedingly complicated source that has never been closely studied. Because it is all that survives, we must know as

44. *Paléographie musicale XVII*, cahier 5, no. 9.

45. LEROQUAIS 1937, p. 130.

46. *Paléographie musicale XVII*, p. 31, cahier 7, no. 6.

47. LEROQUAIS 1924, II, p. 88.

48. See, for example, HAINES 2009.

49. CHAPOTIN 1898, p. 156-160. The house was dedicated to St. James, and lay inside the old city walls.

50. The antiphoner in the State Library of Victoria, prepared for a house of Dominican nuns in Poissy (diocese of Chartres) in 1335-1345, has been digitized at <http://www.lib.latrobe.edu.au/MMDB/images/Poissy/FOL_001R.htm>.

much as we can about it, yet ignore the tendency to generalize from it. Each part of the book, from the calendar to the breviary, presents unique problems. I will examine each of them and subsequently draw what conclusions I can about the book and the probable means of production it represents. This is an early thirteenth-century book, that much is clear, and it is useful to have a roughed out framework of the development of script and notation in Chartres to position it with a bit more precision (see Table 1 for manuscript description, hereafter).

As Table 1 demonstrates, the book contains no feasts established in the thirteenth century, except as additions, and even the feast of St. Thomas Becket is essentially without musical notation, although the feast is part of the main corpus of the book and written in one of the main scribal hands.⁵¹ Because it is the Winter half only, the saints' feasts it contains are those found from Advent through to June 1. It would have been telling to see if the feast of St. Anne (established in the very early thirteenth century) was part of the source or only an addition, as it is in the calendar. Yet this is a book that was kept current through additions both to the calendar and to the text itself by the copying of later liturgical materials, both on blank leaves and on leaves with writing, as additions. Comparison of the calendar to that of Chartres 520, a noted missal prepared for the cathedral probably later in the first quarter of the thirteenth century, reveals very few differences. Liturgical changes came in slowly at Chartres, and some books seem to have been prepared from earlier copies as registers of liturgical practice rather than for actual use. Provins 12, for example, which may have been written late in the first quarter of the thirteenth century, has many archaic features, making it somewhat out of sync with the apparent dates of its script and notation.

The make-up of vat. lat. 4756 and the natures of the hands that produced it are problematic (see Pl. 9 to 12). If this book was prepared in a local scriptorium in the first decades of the thirteenth century, it was a bustling place, with at least two kinds of scribes working side by side: those who specialized in copying liturgical books, and those who had responsibilities for copying charters as well as liturgical books. The psalter that prefacing the breviary was copied in several hands, as can be seen in my detailed summary of the book's make-up in Table 2 (hereafter); there are no quire signatures in this part of the book. The first psalter hand (P1) is the same one that produced the calendar, and this hand, along with other hands represented in the psalter, is earlier in its features than the main hands of the noted breviary. It is difficult to imagine how exactly such a psalter was assembled, for there are sections in which a later and very different hand picks up a new folio in the middle of a word, as in the transition from hand P1 to hand P2 in the midst of psalm 36. The earlier hands in the group (P1 and P3) were influenced by the practice of copying charters, as flourishing at the top lines of their work reveals. The calendar contains no thirteenth century feasts, except as later additions, even the feast of St. Anne, which came in around 1205, is an addition. The main corpus of the breviary does not contain any of the psalter hands, and its main script hands (B1 and B2) contain features that suggest the second or third decades of the century. As is the case with other Chartrain liturgical books, a hand that writes texts for prayers and lessons also writes chant texts, and more compactly, with more features that are characteristic of later scripts. To compare the ways a single hand functions in two modes of writing is often illuminating, as is the situation with hand B1 of vat. lat. 4756.

51. Becket was canonized in 1173, and his feast (December 29) came in early at Chartres. Becket had close associations with John of Salisbury, who was also present at his murder, and who became bishop of Chartres in 1176 and died and was buried there in 1180.

The mise-en-page of vat. lat. 4756 also suggests early in the second quarter of the thirteenth century. Although books produced at St. Peter's in the tenth and eleventh centuries were commonly ruled in double columns, none of the notated liturgical books photographed by Delaporte and dating from the first half of the thirteenth century are so ruled; rather, all are written in long lines. One wonders if the coming of the Chartrain staff was not easy to manage at first in double columns.

The most difficult aspect of the manuscript is the nature of hand B1. I have come to believe that it moves gradually two times through several stages – one in the temporal part of the book and the other in the sanctoral – becoming more and more rapid and frenetic each time it travels through its long transition.⁵² The fundamental characteristics of the script do not change; what does change is speed, as if the scribe needed to hurry, and the book were produced on something of an assembly line; the scribe is also error prone, as if he is somewhat disengaged with the material. It is easy to be fooled by the gradual disintegration of hand B1 in both the temporale and the sanctorale; but if one works page by page, it is easier to trace the transformation. This breviary is a small book, made for an individual who needed to sing the office in the diocese of Chartres. There must have been hundreds of such books produced in the first half of the thirteenth century to serve the needs of the many priests in the diocese, for cathedral canons who served away at various churches, and for the many houses of secular canons throughout the diocese. This book represents the use of the diocese, and contains passages from the diocesan ordinary among its later additions. Still, it is not a cathedral book, narrowly speaking, as minor variations within the liturgy suggest.⁵³ It can be seen from the plan of the manuscript that the trajectory is roughly the same for each half of the book, the temporale and the sanctorale. In the temporale, hand B1 copied from the beginning (fol. 53) to fol. 201; then hand B2 took over until fol. 266. When the sanctorale begins on fol. 269^r, hand B1 did the work again, and continued ever more rapidly until fol. 334; on fol. 335, hand 2 took over again, and copied until the end of this part of the book (fol. 349^v). The two notators work with both scribes; N2 did most of the work of the temporale; N1 appears occasionally in the temporale, but then is the music scribe for the sanctorale.

Hand B1 is a scribe who writes charters as well as liturgical books, and who knows how to flourish initials. His hand is also very like the glossing hand of Chartres, BM, ms. 385, glossed Epistles from the thirteenth century.⁵⁴ Chartres was a place where glossed bibles were produced, and one of the best known twelfth-century glossators, Gilbert of Poitiers, was himself trained in Chartres. B1 may have been a cross-over scribe who worked on the production of charters, glossed Bibles, and liturgical books, and who was a capable flourisher as well. The basic features of the script of B1 are as follows:

a: curved top, with a narrow bow, almost a hairline top on the bow; can occasionally be quite tall (as on fol. 56); see fol. 70^v; in its more hurried state, the bow becomes very slender

b: slightly forked ascender, sometimes capped with a fairly straight line; see fol. 70^r, second line of chant on *nubes* and fol. 183^v, third line up from the bottom, on *bibit*

ct: often not ligated; see fol. 70^r, line 4, at *sanctificante*

52. Michael Gullick has studied the hand of Symeon of Durham in various stages of its development, offering suggestions for ways of identifying fundamental characteristics. See GULLICK 1994.

53. DELAPORTE 1953, p. 212, says it is not a book prepared specifically for the cathedral, although he does not say how he knows this to be the case.

54. See DELAPORTE 1929, p. 65-66 and plate XI.

d: Uncial, often with a flat top, sometimes moving very far to the left; see fol. 70^r, line 9, on *duabus*; another angle on *domibus*

g: nearly closed bottom, sometimes with hair-line finish; at the beginnings of lines, the bottom may extend out with a long tail into the margin, similar to angle of the top of Uncial *d*; two kinds of *g* seen on fol. 70^r on line 6 in *Aegipite* and line 12, *liga*; the scribe starts to use the long tailed *g* even more around fol. 147; the scribe starts omitting the hair line finals on the closed-bottom *g*; fol. 156 is illuminating in regard to the *g*, as is fol. 167^v, first col. upper text; the looped bottom *g* can be seen in the chant text, line 5, *congregaverunt*

h: bottom can fold over at the base to the left; see fol. 70^r, line 10, *h(a)bitantibus*

i: can have a long descender that extends below the line and loops to the left (see fol. 183^v, bottom line, final *-i* of *domini*), esp. at the beginning or ends of words; see also fol. 70^r, line 4, at *ipse*; double slashed on 'ii' is frequent, as is a slash on single *i* as well, to differentiate

l: flat top; sometimes long and thin, and descending below the line, as in fol. 129, line 6 (*lacrimas*); this *l* has a curved top as well, and is very different from the flat top *l* that can be seen on the second line of text (*calicem*)

m: early folios, minims curve to the side with hairline finials (see fol. 70^r); at end of lines sometimes pulls over to the left, and below the line (see fol. 70^r, bottom line, *agnum*); later minims typically close out at the bottom with modified seraphs; this is the style used for *n* as well

n: the right descender, like the *i* described above, may extend below the line and with a loop at the end; this may happen especially in capitals

p: sometimes with a little hook to the right of the descender (see fol. 70^r, second line of chant text *pluant*)

q: may sometimes have a loop to the left on bottom lines

s: both tall *s* and round *s* at ends of words; sometimes at ends of lines the round *s* is dramatically large; round *s* may also be used at the beginning of words; there is a third type of *s*, as can be seen on fol. 180^v, *sanguinis* (third line of text block) – it is a hook with a thin tail, the so-called 'trailing *s*'

t: usually flat across, but occasionally the stem pokes through

Tironian *et*: uncrossed; top can have a wave; see fol. 70^r for several examples; the top of the *et* is longer than the bottom proportionately

u: capital at the beginning of a sentence may have a long, curved right descender

y: not dotted sometimes; sometimes yes with a dot (see fol. 59^v, with both)

On the flourishing: Top and bottom line extends above or below, with charter hand flourishing at the top; examples abound, one of the most extraordinary being that found on fol. 95^r (this scribe was clearly able to write flourished initials)

Fol. 109^v: last example of a double sided flourish, but see fol. 113^r; fol. 119^v: flourishing is generally more sketchy, and this goes with the sense of hurry; fol. 159^v and fol. 160^r, sketchy curls on both sides; fol. 177^r and fol. 178^r, two sided with veined leaves; fol. 187^r is a great folio for comparison with earlier folios to look at characteristics of the hand; fol. 191^r veined leaf

Hand B2 begins at the end of a quire; B2 is a liturgical book-hand, and features of his script can be seen in earlier examples from Chartres discussed above. He shows none of the tendencies to flourish or to add chancel features as found in hand B1; and he is not rushed, but copies at an apparent steady and uniform pace, and is more accurate in his work than scribe B1. Like hand B1, he writes both the texts for readings and prayers as well as for chants. The letter *a* is different from the *a* of hand B1 in that it has next to no loop (see fol. 202^v for multiple examples); *g* has a tail that curves below the bow and remains open with no hairline feature at all; *l* is not flat on top or forked; *d* does not push

over to the side; there is touching of bows sometimes; *b* has just a little fork; the Tironian *et* is often crossed. His Uncial *d* has a fairly short ascender that curves slightly to the left. Good examples of the script can be found on fol. 202^v, where many features are on display, including the crossed *et* in the third line of the first text block. Also, B2 is prone to use tall *s* at the end of words rather than round *s*, and his *ct* ligature is often connected.

Here follow characteristics of the two notators:

N1: Chartrain staff. The C-clef has a hairline end; the F-clef is made from a two-line F, with a hook top that curves to the left. The note heads are square and angular, and the *punctum* may also be a square; but there is also use of a short *tractulus* that almost makes a diamond shape. The note heads are relatively larger than those of N2. See fol. 336^r for his writing with textual hand B2.

This is the closest one gets to square notation among the manuscripts studied from the first third of the thirteenth century, that is, excepting the leaf from Chartres, BM, ms. 521, and depending on when one dates it (I to the second half of the thirteenth century; Leroquais to the first half of the thirteenth century).

N2. Chartrain staff. C-clef is made of two dots that angle to the right; F-clef is made of a C-shaped loop that sometimes closes, with a line below it. The neumes are short and rather blocky and show earlier characteristics of Chartrain neumes in their structures. The *virga* can have either a fairly square or a more rounded head. The *pes* has a foot that is often slightly bigger than the upper note. *Puncta* can be fairly round or somewhat square. This hand writes more carelessly than does hand N1. See fol. 183^v for N2, with hand B1.

The quires of the manuscript are listed in Table 2 (hereafter). There are three conflicting sets of signatures, one fairly full and the other two only partial; the psalter has no signatures at all. The manuscript consists in the main of quires made up of five sheets of parchment, and this is true even for the psalter. The make-up of the book and the signatures suggests that it was compiled in several stages and from a variety of materials. It would seem that the calendar and the parts of the psalter in the calendar hand may be the oldest parts of the compilation, but the temporale of the breviary existed in another form at one time as did the sanctorale. The components of the breviary (temporale and sanctorale) were then added one to the other; at some point a calendar and psalter were added; later additions were either copied on empty leaves or added before this particular rendition was bound as the book we have today. The section at the end that contains texts for the Feast of the Conception of the Virgin and the Feast of Corpus Christi was copied in the early fourteenth century, and makes a separate section that was later added to the manuscript. As the present binding dates from the late eighteenth century, it cannot be said when this addition was made.

How was the main corpus of the book copied, apart from the calendar psalter at the beginning and the later addition at the end? We know that the two main scribes of the breviary (hands B1 and B2) were contemporaries, as they both worked with the two notators (N1 and N2). Their script styles are, however, very different in nature. Hand B1 can write at a rapid pace when he wants to, as he does at the end of the two sections he copied. He is a capable flourisher, and he knows how to write charters, which may be his principal occupation. He would have been a capable copier of texts for the school books as well.⁵⁵ Hand B2 is completely different; he is a liturgical book producer, a careful scribe who may copy bibles in addition to books for the liturgy.

55. KIRCHNER 1966 depicts a page of Arras, Bibliothèque municipale, ms. 692 (758) from the Lombard's Sentences, written in the monastery of St. Vaast in 227. In some ways the script is reminiscent of that employed by B1. See plate 9b and commentary, p. 23.

CONCLUSIONS

The development of square notation in the diocese of Chartres in the late twelfth and thirteenth centuries is difficult to trace because of the sparse and fragmented nature of the evidence. As a result conclusions are only tentative. Nonetheless, there is a sense of motion in the late twelfth century and the first half of the thirteenth century toward the writing of neumes that are increasingly square in their shapes, and toward the use of a dry-point line staff upon which they are displayed. It would appear that the two elements of musical understanding worked in parallel motion in the early decades of the thirteenth century, with newly developing neume shapes that were initially ill suited to the Chartrain staff that was created for them. It is not really until the middle of the century that we see neumes and staves that appear well synchronized, and note heads that are indeed fairly independent of the earlier neumatic notation from which they descend directly.

The style of neumation depends on many things besides chronological development. One must consider the type of book and its intended audience, the nature of the scriptorium that produced it, including the kinds of conditions under which it was made, the training of the scribes, and the scribes' apparent other duties in matters of book production. One of the things that the study of liturgical books from the diocese of Chartres suggests is how little attention has been given to the ways in which liturgical books were produced for diocesan use, how they were transmitted, and who was in charge of their production. There is no other extant book from Chartres that is put together like the only surviving noted breviary from the diocese of Chartres, Vat. Lat. 4756, yet the book is a witness to a particular scriptorium and a means of production. In this place, scribes must have been producing books quickly, with different kinds of scribes in residence, some practiced chancel scribes who were also glossators, others who may have specialized in copying liturgical book and other texts. The notators were very different too. One looked back to styles of neumation found early in the thirteenth century; the other wrote primarily in small, square neumes, a man of the future. Yet we know these men worked side by side. It is clear that in general the shift to square notation in Chartres in the first half of the thirteenth century was gradual, and this in spite of the nearness to Paris and the clear knowledge that many in Chartres had of the Parisian book trade and book production.

Full-blown square notation from Chartres can be first seen in a photograph of a leaf from Chartres, BM, ms. 521, a noted missal from the Benedictine Abbey of St. Peter's, dated to sometime in the thirteenth century.⁵⁶ It is not in the scriptorium of the most venerable institution in Chartres that such an innovative means of notation would be expected. How did this come to be? We cannot say, as so many books are lost. This leaf, like so much else from Chartres, insists that we look more carefully at book production in many dioceses and begin to compare the processes at work and the changes taking place in the course of the thirteenth century. There was no simple or straight trajectory toward square notation, but rather many paths and byways, and scribes moved along them in parallel but often contradictory motion.

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56. *Paléographie musicale XVII*, p. 31, dates it to the thirteenth century; see also DELAPORTE 1929, p. 69-70. The book is catalogued in LEROQUAIS 1924, II, p. 88-89, and dated to the first part of the thirteenth century. As the manuscript is now destroyed, further dating does not seem possible as we do not know if the sole surviving photographed page is typical of the whole. The script appears to be of the mid-thirteenth century, and the notation is fully 'square' on a carefully ruled Chartrain staff. The F-clef is not of the earlier style found in Chartrain manuscripts from the early thirteenth century.

TABLE I. MANUSCRIPT DESCRIPTION AND CHART OF FEASTS
IN BIBLIOTECA APOSTOLICA, VAT. LAT. 4756

Vat. lat. 4756: Psalter and notated breviary from the diocese of Chartres; written in several hands from the first third of the thirteenth century, with some later additions. Also described in Pierre Salmon, *Les manuscrits liturgiques latins de la bibliothèque vaticane*, 5 vols; vol. I *Psautiers Antiphonaires Hymnaires Collectaires Bréviaires*; *Studi e Testi* 251 (Vatican, 1968), p. 173-174; Henry M. Bannister, *Monumenti Vaticanani de Paleografia Musicae Latina* (Leipzig, 1913), p. 155; plate no. 97a (original dimension); and Hugo Ehrensberger, *Libri Liturgici Bibliothecae Apostolicae Vaticanae* (Friburg im Breisgau, 1897), p. 221-222.

BINDING: fairly loose, modern stamped-leather; the spine bears the coat of arms of Pope Pius VI (s. 1775-99).

DIMENSIONS: 363 fols., 140 × 115 mm (115 × 77)

PAGES:

Main body of the MS. Fine parchment ruled across the page on hair side with a dry point. Pages are 2 columns, 47-9 lines; each column: ca. 34 mm wide; space between columns: ca. 10 mm. The two columns of writing are ruled in lead pencil: inner and outer single horizontal boundary lines and double or triple vertical boundary lines at top and bottom of page; some prickings are still visible.

DEPARTURES:

fol. 41-52: 1 column; lines ruled in very faded pale-brown ink with single horizontal and vertical boundary lines

fol. 266-268: 1 column; various lines

QUIRE SIGNATURES: sporadically, and three differing sets; usually in the lower-right of verso; see chart

FOLIATION: modern, in light-brown ink in upper right-hand corner

INK: main body of text in varying shades of dark brown ink; later additions are either lighter (fol. 266^v-268^v; fol. 357^v-359^r) or darker (fol. 350^r-357^r)

DECORATION:

Lettres d'attente visible throughout;

Flourished initials occupying two to five lines, red flourished with light green, blue flourished with red or green flourished with red. Simple flourishing on upper and lower lines of some scribes work, showing the influence of chancery training. These occasional pen flourishes on terminals of letters are often decorated with red.

A few gold-painted initials outlined in black with mauve or blue infilling and a background of mauve or blue outlined in black. In other cases the gold letter is on a segmented mauve-and-blue ground with white-line filigree decoration. Kalendar letters on segmented red-and blue ground with white-line decoration. Painted initials are found in the Calendar and Psalter, for several feasts in the Temporale, and for saints Andrew (2), Nicholas (2), Tiburcius and Valerian (1), and Cheron (2).

MUSIC NOTATION: 4-line staff with green F-line (which corresponds to a line of ruling) and light-yellow C-line. C or F clefs; no custos. Some staves have no clefs. Notation is of two styles and reflects the work of two main music scribes.

SCRIPT: Textualis; the work of two main hands, one of which writes increasingly rapidly in each of his two major sections.

Annotation on fol. 357^r: 'Messer Philibert Leblont chapelain en l'église de Meux'

CONTENTS: (Sections not indented, although in a variety of hands, are contemporary; indented sections are a variety of later supplements, which have been labeled "S" and numbered in order of appearance, rather than chronologically.)

Fols. 1-3^v Calendar; fols. 4-36^v Psalter; fols. 36^v-40 Canticles and litany; fol. 40^v Blank

S1: fols. 41-52^v Rubrics followed by votive offices, the office of Peter Celestine (cd 1313), and Saturday Marian Office

Fols. 53-348^v:

Winter Breviary (with but few exceptions, fully notated, and with plentiful rubrics): Temporale beginning with Advent I (fol. 53-252^v); Common of Saints; Office of the Dead (fol. 253-265^v, not notated)

S2 and S3: two later additions: fols. 266^v-267^r Second Translation of St. Aignan (not notated); fols. 267^v-268^v Translation of St. Nicholas (not notated) Sanctorale (fol. 269-349^v)

S4: fols. 350-357 Later appendix to the Sanctorale

S5: fols. 357^v-363^v Various late additions, including the Office of Corpus Christi

269^r Rubrics explaining what to do when the feast of Andrew interferes with Advent

269^v Large gilt initial for Andrew

270^r Second large gilt initial for Andrew

273^v What happens to Tugdale and Andrew if first Sunday of Advent interferes. See also Chartrain Ordinal, ed. Delaporte, p. 191.

Presence/Absence of Feasts Useful for dating Chartrain MSS in Vat. lat. 4756

Key: Add. = Added to Cal. by a later hand; XX = Outside the scope of this Winter Breviary; Supplements (in order of appearance rather than by date) = S1, etc.

| FEAST | DATE IN CHARTRES | CALENDAR (12 MONTHS) | MAIN TEXT (JAN-MAY) | SUPPLEMENTS |
|------------------------------|--|-------------------------|------------------------|-------------|
| Corpus Christi | By 1326 | No | No | S5 |
| William of Bourges Jan 10 | After 1218 | Add | No | S4 |
| Ambrose April 4 | After 1298 | Add. | No | S4 |
| Trans. Odilio April 12 | After 1348 | No | No | No |
| John at Latin Gate May 6 | Raised to 9 lc during 13 th C. | Yes | 3 lc | S4 |
| Trans. Nicholas May 9 | Add during 13 th C. | No | No | S3 |
| Peter Celestine May 19 | After 1313 | Add. | No | S1 |
| Ivo of Brittany May 21 | After 1347 | No | No | No |
| Mary Jacoby May 22 | 1385 | No | No | No |
| 2Tran. Aignan June 10 | 1264 | Add. | XX | S2 |
| Margaret July 20 | During 13 th C. | Add. | XX | XX |
| Anne July 26 | c. 1205 | Add. | XX | S5 (prayer) |

| FEAST | DATE IN CHARTRES | CALENDAR (12 MONTHS) | MAIN TEXT (JAN-MAY) | SUPPLEMENTS |
|---|----------------------------|---------------------------------|---|-------------|
| Bethus Moved from Aug. 1 to 2 | 9 lc in 1368 | Raised to Mem. only on Aug 1 | XX | XX |
| ND of Snows August 5 | 1376 | No | XX | XX |
| Trans. Holy Crown August 11 | 1239 | No | XX | XX |
| Louis August 25 | 1297 | No | XX | XX |
| Theclus Sept. 23 | During 13 th C. | No | XX | XX |
| Francis October 4 | After 1228 | No | XX | XX |
| Mary Salome October 22 | 1385 | No | XX | XX |
| Presentation BVM November 21 | After 1372 | No | XX | XX |
| Eloi Dec 2 at ND; Dec 1 at St. Jean | During 13 th C. | Yes Yes: Dec 1 Add. Dec 2 | Yes | |
| Conception BVM December 8 | Around 1300 | Add. | No | S4 |
| Thomas of Canterbury December 29 | Soon after 1173 | Yes | Yes Mostly unnoted, although space was left for music | |

TABLE 2. THE QUIRES OF BIBLIOTECA APOSTOLICA, VAT. LAT. 4756

| MATERIAL | QUIRES | TEXT SCRIBE | NOTATOR | LATER ADDS. | FOL. (MODERN) |
|-------------------------------|--|-----------------------------|----------|-------------|---------------------|
| Calendar and Psalter | A 5 sheets | P1 earlier 13 th | | | 1-3 |
| Ps. 1-36:19 | fols. 1-10 | P1 earlier 13 th | | | 4-10 |
| Ps. 36:19-Ps. 87 | B 5 sheets lighter parchment fol. 11-22 ^v | | P2 13-14 | | 11-22 |
| Ps. 88-Ps. 108 | C 5 sheets darker again fol. 23-30 ^v | P1 earlier 13 th | | | 23-28 ^v |
| Ps. 109-Ps. 118:80 | | P3 earlier 13 th | | | 28 ^v -30 |
| Ps. 118-80-Ps. 127:3 | stray sheets | P4 3/4 14 th | | | 31-32 ^v |
| Ps. 127:3- through end | D 3.5 sheets fol. 34-40 | P3 earlier 13 th | | | 33-40 ^v |
| blank | | | | | 40 ^v |
| Part of ordinal BVM: Sat. | E 6 sheets fol. 41-52 ^v | O1 early 14 th | | | 41-52 ^v |
| Noted Brev. | F 5 sheets | B1 | N1 | | 53-54 |
| Temporale | fol. 53-62 ^v | | N2 | | 54 ^v -62 |
| Signature | 62 ^v ? Style 1 | | N1 | | 62 ^v -64 |
| | G 5 sheets fol. 63-72 ^v | B1 | N2 | | 64 ^v -72 |
| | | | N1 | | 72 ^v |
| Signature | VI ? Style 1 | | | | 72 ^v |
| | H 5 sheets fol. 73-82 ^v | B1 | N2 | | 73- |
| Signature | VII Style 1 | | | | 82 ^v |
| | I 5 sheets fol. 83-92 ^v | B1 | N2 | | |
| Signature | ? Style 1 | | | | 92 ^v |
| | J 5 sheets fol. 93-102 ^v | B1 | N2 | | |
| Signature | IX Style 1 | | | | 102 ^v |
| Becket; mostly no notation | K 5 sheets fol. 103-112 ^v | B1 | N2 | | |
| Signature | VI Style 2 | | | | 103 ^v |
| Signature | X Style 1 | | | | 112 ^v |
| | L 5 sheets fol. 113-122 ^v | B1 | N2 | | |
| Signature | XI Style 1 | | | | 122 ^v |
| | M 5 sheets fol. 123-132 ^v | B1 | | | |
| Signature | VIII Style 2 | | | | 123 ^v |
| Signature | ? Style 1 | | | | 132 ^v |
| | N 5 sheets fol. 133-142 ^v | B1 | N2 | | |
| Signature | IX Style 2 | | | | 133 ^v |

| MATERIAL | QUIRES | TEXT SCRIBE | NOTATOR | LATER ADDS. | FOL. (MODERN) |
|--------------------------------|---|---------------------------|----------------------------|---------------------------------------|------------------------------------|
| <i>Signature</i> | ? <i>Style 1?</i> O 5 sheets fol. 143-152 ^v | B1 | N2 | | 142 ^r |
| <i>Signature</i> | X <i>Style 2</i> P 5 sheets fol. 153-162 ^v | B1 | N2 | | 143 ^r |
| <i>Signature</i> | XI <i>Style 2</i> | | | | 153 ^r |
| <i>Signature</i> | ? <i>Style 1</i> Q 5 sheets fol. 163-172 ^v | B1 | N2 | | 162 ^v |
| <i>Signature</i> | XVI <i>Style 1</i> R 4 sheets fol. 173-180 ^v | B1 | N2 | | 172 ^v |
| | S 5 sheets fol. 181-190 ^v | B1 | N2 | loose strip after 183 ^v | |
| Correction | | B2 | | | 189 ^r |
| | T 5 sheets fol. 191-200 ^v Stubs? | B1 | N2 | | |
| <i>Signature</i> | XIX <i>Style 1</i> U 5 sheets fol. 201-210 ^v | B2 | N2 | | 200 ^v |
| <i>Signature</i> | XX <i>Style 1</i> V 5 sheets fol. 211-220 ^v | B2 | N2 | | 210 ^r |
| <i>Signature</i> | XXI <i>Style 1</i> W 5 sheets fol. 221-230 ^v | B2 | N2 | | 220 ^r |
| <i>Signature</i> | XXII <i>Style 1</i> X 5 sheets fol. 231-240 ^v | B2 | N2 | | 230 ^r |
| <i>Signature</i> | XXXIII <i>Style 1</i> Y 5 sheets fol. 241-250 ^v | B2 | N2 | | 240 ^r |
| <i>Signature</i> | XXIIII <i>Style 1</i> | | | | 250 ^r |
| End of Trinity | Z 4 sheets | B2 | No notation | | 251-266 ^r |
| Commons | fol. 251-258 ^v AA 5 sheets fol. 259-268 ^v | B2 B2 | No notation No notation | | |
| Trans. Anianus and Nicholas | | 13/14 th curs. | No notation | | 266 ^v -267 ^r |
| | BB 5 sheets fol. 269-274 ^v | B1 | N1 | | |
| Sanctorale | I <i>Style 3</i> | | | | 269 ^r |
| <i>Signature</i> | XXV <i>Style 1</i> CC 5 sheets fol. 279-288 ^v | B1 | N1 | | 278 ^v |
| <i>Signature</i> | II <i>Style 3</i> | | | | 279 ^r |
| <i>Signature</i> | XX? <i>Style 1</i> DD 5 sheets fol. 289-298 ^v | B1 | N2 | | 288 ^v |

| MATERIAL | QUIRES | TEXT SCRIBE | NOTATOR | LATER ADDS. | FOL. (MODERN) |
|--------------------------|---|------------------------|-------------|-------------|------------------------------|
| <i>Signature</i> | <i>III Style 3</i> | | | | 289 ^r |
| <i>Signature</i> | <i>XXVII Style 1</i> EE 5 sheets fol. 299-308 ^v | B1 | N2 | | 298 ^v |
| <i>Signature</i> | <i>XXVIII Style 1</i> FF 5 sheets fol. 309-318 ^v | B1 | N2 | | 308 ^v |
| <i>Signature</i> | <i>XXIX Style 1</i> GG 5 sheets fol. 319-328 ^v | B1 | N2 | | 318 ^v |
| <i>Signature</i> | <i>XXX Style 1</i> HH 5 sheets fol. 329-338 | B1 | N2 | | 328 ^v 329-335v |
| | | B2 | N1 | | 335 ^v -339 |
| <i>Signature</i> | <i>XXXI Style 1</i> II 5 sheets 339-348 ^v | B2 | N1 | | 338 ^v |
| <i>Signature</i> | <i>XXXII Style 2</i> | | | | 348 ^v |
| End in Peter's chains | | | | | 348 ^v |
| Readings for Marcellinus | Stub | B2 | No notation | | 349 ^{rv} |
| | <i>JJ 5 sheets</i> fol. 350-359 | | | | |
| Concep BVM | | 14 th curs. | No notation | | 350-357 ^r |
| What to do about Ambrose | | 13 th | No notation | | 357 ^v - |
| Corpus Christi | | 13/14 | No notation | | 358-359 ^v |
| | <i>KK 2 sheets</i> fol. 360-363 ^v | | | | |
| Various prayers | | | | | 360-362 ^v |
| [364] | Paper flyleaf | | | | |
| [365] | paper flyleaf | | | | |

BIBLIOGRAPHY

ARLT 1993 : Arlt Wulf, « Stylistic Layers in Eleventh-Century Polyphony: How can the *Continental Sources* Contribute to our Understanding of the Winchester Organum? » in David Hiley & Susan Rankin eds., *Music in the Medieval English Liturgy: Plainsong & Mediaeval Music Society Centennial Essays*, Oxford, Clarendon, 1993, p. 101-141.

ARMSTRONG-PARTIDA 2005 : Armstrong-Partida Michelle, « Mothers and Daughters as Lords: The Countesses of Blois and Chartres », *Medieval Prosopography*, XXVI (2005), p. 77-107.

BIZEAU 1969 : Bizeau Pierre, *Bibliographie du chanoine Yves Delaporte, archiviste du diocèse de Chartres, pour les années 1904 à 1969*, Chartres, 1969.

BOYNTON 2006 : Boynton Susan, *Shaping a Monastic Identity: Liturgy and History at the Imperial Abbey of Farfa, 1000-1125*, Ithaca, Cornell, 2006.

CARDINE 1982 : Cardine Dom Eugène, *Gregorian Semiology*, transl. Robert Fowels, Sablé-sur-Sarthe, Abbaye Saint-Pierre de Solesmes, 1982.

CHAPOTIN 1898 : Chapotin Marie-Dominique, *Histoire des dominicains de la Province de France. Le siècle des fondations*, Rouen, Cagniard, 1898.

DELAPORTE 1929 : Delaporte Yves, *Les manuscrits enluminés en la Bibliothèque de Chartres*, Chartres, Société Archéologique d'Eure-et-Loir, 1929.

DELAPORTE 1953 : Delaporte Yves, *L'ordinaire chartrain du treizième siècle*, Chartres, Société archéologique d'Eure-et-Loir, 1953.

DELAPORTE 1957 : Delaporte Yves, « Fulbert de Chartres et l'école chartraine de chant liturgique au XI^e siècle », *Études grégoriennes*, II (1957), p. 51-81.

DEROLEZ 2003 : Derolez Albert, *The Paleography of Gothic Manuscript Books from the Twelfth to the Early Sixteenth Century*, Cambridge, Cambridge University Press, 2003.

DREVES 1891 : Dreves Guido Maria ed., *Sequentiae ineditae, Analecta Hymnica* 10, Leipzig, O.R. Reisland, 1891.

EVERGATES 2007 : Evergates Theodore, *The Aristocracy in the County of Champagne, 1100-1300*, Philadelphia, University of Pennsylvania Press, 2007.

FASSLER 1993-1 : Fassler Margot, *Gothic Song: Victorine Sequences and Augustinian Reform in Twelfth-Century Paris*, Cambridge, Cambridge University Press, 1993 ; 2nd ed., Notre Dame, Ind., Notre Dame University Press, 2011.

FASSLER 1993-2 : Fassler Margot, « Liturgy and Sacred History in the Twelfth-Century Tympana at Chartres », *The Art Bulletin*, LXXV (1993), p. 499-520.

FASSLER 2010 : Fassler Margot, *The Virgin of Chartres: Making History through Liturgy and the Arts*, New Haven, Yale University Press, 2010.

GOUDESENNE 2008 : Goudesenne Jean-François, « Fulbert et son école dans l'histoire du chant liturgique », in Michel Rouche ed., *Fulbert de Chartres: Précurseur de l'Europe médiévale ?*, Paris, Presses de l'université Paris-Sorbonne, 2008, p. 302-317.

GULLICK 1994 : Gullick Michael, « The Scribes of the Durham Cantor's Book (Durham, Dean and Chapter Library, MS B.IV.24) and the Durham Martyrology Scribe », in David Rollason *et al.* eds., *Anglo Norman Durham 1093-1193*, Woodbridge, Boydell, 1994, p. 93-109.

HAINES 2008 : Haines John, « From Point to Square: Graphic Change in Medieval Music Script », *Textual Cultures: Texts, Contexts, Interpretation*, III (2008), p. 30-53.

HAINES 2009 : Haines John, « The Origins of the Musical Staff », *The Musical Quarterly*, XCI (2009), p. 327-378.

HILEY 1992 : *Missale Carnotense: Chartres, Codex 520: Faksimile*, David Hiley ed., Monumenta Monodica Medii Aevi, 4, Kassel, Bärenreiter, 1992.

HILEY 1993 : Hiley David, « Provins, Bibliothèque Municipale 12 (24), a 13th-Century Graduale with Tropes from Chartres Cathedral », in Wulf Arlt & Gunilla Björkvall eds., *Recherches Nouvelles sur les Tropes Liturgiques*, Stockholm, Almqvist & Wiksell, 1993, p. 239-269.

KARP 2001 : Karp Theodore, « Exploring a Little-Known Chant Source: Provins, Bibl. Mun. MS 12 », in Enrique Alberto Arias et al. eds., *A Compendium of American Musicology: Essays in Honor of John F. Ohl*, Evanston, Northwestern University Press, 2001, p. 3-28.

KIRCHNER 1966 : Kirchner Joachim, *Scriptura Gothica libraria : a saeculo XII usque ad finem medii aevi*, Vienna, R. Oldenbourg, 1966.

KRUCKENBERG & HAUG 2006 : Kruckenberg Lori & Haug Andreas eds., *The Sequences of Nidaros: A Nordic Repertory and Its European Context*, Trondheim, Tapir Academic Press, 2006.

LANGLOIS 1905 : Langlois Marcel, « Scribes de Chartres », *Revue Mabillon*, I (1905-1906), p. 161-176.

LEROQUAIS 1924 : Leroquais Victor, *Les Sacramentaires et les missels manuscrits des bibliothèques publiques de France*, 3 vols., Paris, 1924.

LEROQUAIS 1937 : Leroquais Victor, *Les Pontificaux manuscrits des bibliothèques publiques de France*, vol. 1, Macon, Protat Frères, 1937.

LIEFTINCK 1954 : Lieftinck Gérard, « Pour une nomenclature de l'écriture livresque de la période dite gothique: essai s'appliquant spécialement aux manuscrits originaires des Pays-Bas médiévaux », in *Nomenclature des écritures livresques du IX^e au XVI^e siècle, premier colloque international de paléographie latine*, Paris, 28-30 Avril, 1953, Paris, CNRS, 1954, p. 15-34.

LIVINGSTONE 2010 : Livingstone Amy, *Out of Love for my Kin: Aristocratic Family Life in the Lands of the Loire, 1000-1200*, Ithaca, Cornell University Press, 2010.

LOPRETE 2007 : Loprete Kimberley, *Adela of Blois, Countess and Lord*, Dublin, Four Courts Press, 2007.

MC LAUGHLIN 1995 : McLaughlin Megan, « The Twelfth-Century Ritual of Death and Burial at Saint-Jean-en-Vallée in the Diocese of Chartres », *Revue Bénédictine*, CV (1995), p. 155-166.

MERLET 1900 : Merlet Lucien & Merlet René eds., *Dignitaires de l'Église de Chartres. Listes chronologiques*, Chartres, 1900.

MERLET & CLERVAL 1893 : Merlet René & Clerval Alexander, *Un manuscrit Chartrain du XI^e siècle*, Chartres, 1893.

OMONT 1890 : Omont Henri, *Catalogue des manuscrits de la Bibliothèque de la Ville de Chartres*, Catalogue général des manuscrits français, 11, Paris, Plon, 1890.

Paléographie musicale XVII : *Fragments des manuscrits de Chartres: Reproduction phototypique, présentation par le chanoine Yves Delaporte*, Paléographie musicale, XVII, Solesmes, Abbaye Saint-Pierre, 1958.

POIREL 2007 : Poirel Dominique, « Les manuscrits sinistrés de Chartres: restitution d'une bibliothèque », in *LIRHT, avenir d'une tradition*. Journée d'étude organisée le 25 janvier 2007, Paris, IRHT, 2007.

SAMARAN & MARICHAL 1959 : Samaran Charles & Marichal Robert, *Catalogue des manuscrits en écriture latine portant des indications de date, de lieu, ou de copiste*, 7 vols., Paris, CNRS, 1959-1984.

STÄBLEIN 1975 : Stäblein Bruno, *Schriftbild der Einstimmigen Musik*, Leipzig, Deutscher Verlag für Musik, 1975.

STIRNEMANN 1997 : Stirnemann Patricia, « Gilbert de la Porrée et les livres glosés à Laon, à Chartres et à Paris », in Jean-Robert Armogathe ed., *Monde médiéval et société chartraine*, Paris, Picard, 1997, p. 83-96.

TREITLER 2003 : Treitler Leo, *With Voice and Pen: Coming to Know Medieval Song and How It Was Made*, Oxford, Oxford University Press, 2003.

VLAHOVA 2000 : Vlahova Hana, *Medieval liturgical manuscripts from St.-Vitus Cathedral at Prague Castle*, Ph.D. diss., Charles University, Prague, 2000.

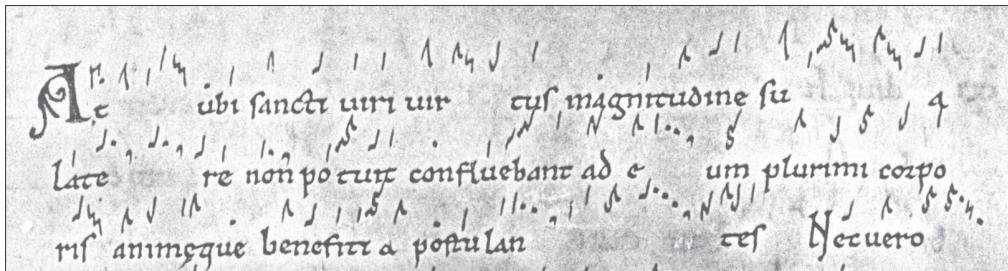
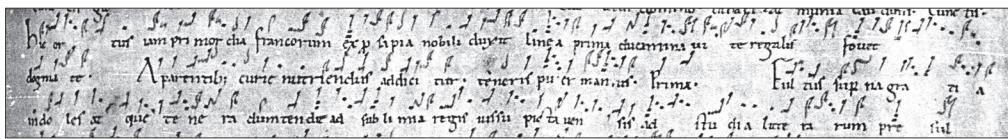
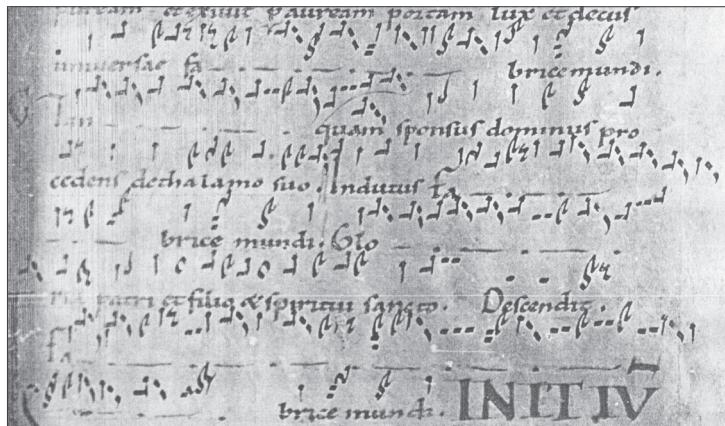
Some characteristic neumes in North French, Sicilian and Italian chant manuscripts

The transfer of liturgical chant from one geographical area to another throws up particularly interesting questions and may provide unique opportunities for observing how chant was transmitted. Sometimes the questions are only partially answerable, the problems being particularly intractable. The transfer of Roman chant to Francia raises some of the most difficult problems, which have attracted generations of scholars, both because of the historical importance of the process and also because of the chance it seems to offer of getting to the roots of how chant was learned, performed and passed on to successive generations of singers. Subsequent centuries, as 'Gregorian' chant spread through an ever wider area of medieval Europe, offer numerous windows onto the transmission process, onto the repertories transmitted and the versions in which they were sung, and – the subject of this short essay – how it was notated.¹

The transfer of liturgical chant by the Normans to South Italy and Sicily at the end of the eleventh and beginning of the twelfth centuries would seem to offer almost ideal conditions for an investigation of the above matters. The earliest surviving Sicilian chant books contain a repertory which is almost exclusively North French. A host of significant concordances show that, when the Normans conquered South Italy and Sicily, they established characteristically Norman or at least North French liturgical practices. Variant readings in chant texts and melodies show close correspondences between Sicilian and Norman or North French chant books. Exactly how the transfer was accomplished must remain largely conjectural, since no contemporary documents describe what happened except in a general way.² No doubt much

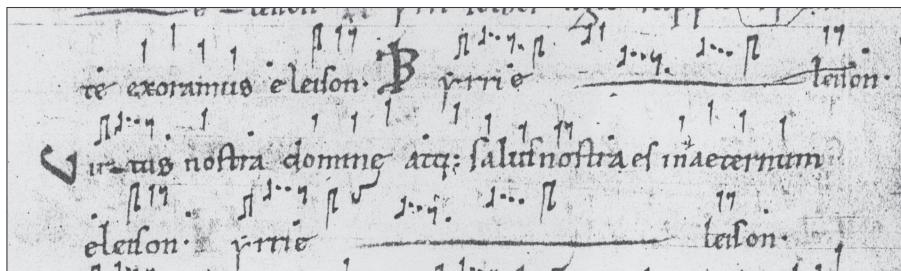
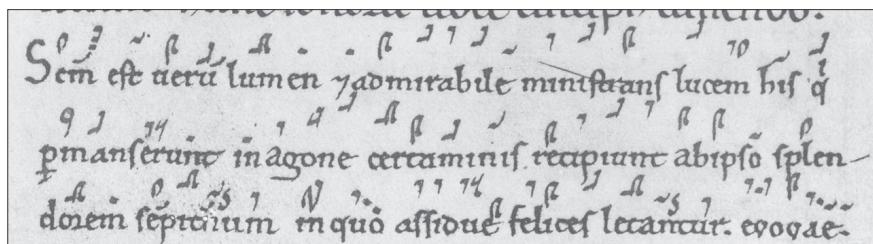
1. The following reflections arose during preparation for the publication of my doctoral thesis, 'The liturgical music of Norman Sicily: a study centred on manuscripts 288, 289, 19421 and Vitrina 20-4 of the Biblioteca Nacional, Madrid' (Ph.D. dissertation, University of London King's College, 1981), and of an edition of the office of St Julian contained in Madrid 288 (HILEY 2000). I have written elsewhere about the repertorial aspects of the transfer, in HILEY 1980; 1983; 2001 (introduction).

2. The best-known and oft-quoted account is that of Ordericus Vitalis. He relates how in the 1060s Robert Guiscard refounded the abbeys of Sant'Eufemia (near Nicastro in Calabria), Holy Trinity at Venosa in Apulia and St Michael's at Mileto in Calabria. All were placed under the direction of Robert de Grandmesnil, previously of the abbey of St.-Évroult in Normandy. 'So in these three Italian monasteries the liturgy of St. Évroult is chanted [*Uticensis cantus canitur*] and the monastic rule has been observed to the present day, as far as the customs of the region and the allegiance of the inhabitants allow [*prout opportunitas illius regionis et amor habitantium permittit observatur*]'. See CHIBNALL 1969, vol. 2, p. 103.

Figure 1. Rouen, Bibliothèque municipale, 1396 (U. 135), fol. 92^r.Figure 2. Rouen, Bibliothèque municipale, 1383 (Y. 80), fol. 168^r.Figure 3. Rouen, Bibliothèque municipale, 243, fol. 18^r.

was done orally. Those performing the liturgy would for the most part have been French clerics and monks, reproducing what they had learned in their northern homeland. But a few cantor's books have also survived to document the process. What can their notation tell us about the transfer of chant to Sicily?

Our principal witnesses date from the twelfth century. Some are still in Sicily; others were taken to Spain after the period of Aragonese domination. The chief scribe of the earliest manuscript, Madrid, Biblioteca Nacional, 288, writes French adiastematic neumes, while in the other manuscripts we find staff notation of a type which is usually referred to as 'Norman-Sicilian'. Despite the difference in notation, Madrid 288 is very closely related in repertory to one of the sources with staff notation, Madrid 289. It seems as if parts of the latter book might have been copied from the earlier one; at least one could say that the chief scribe of Madrid 289 had learned chant from someone directly or indirectly connected with Madrid 288. One inevitably asks whether the history of the notations in these manuscripts can be reconstructed as a parallel to the history of the chants they notate. Does Madrid 288 have any close relatives in North France? Can its neumes be regarded as an ancestor of the staff notation

Figure 4. London, British Library, Royal 8.C.xiii, fol. 3^v.Figure 5. Oxford, Magdalen College, 226, fol. 137^r.

in Madrid 289 and the other later books? If not, where did the later notation come from: also from France, or from Italy? As it happens, the sign known as the *clivis* (or *flexa*) displays features which are significant for the inquiry. In the case of most sources, the *orrectus* presents comparable features. At issue is whether or not they are written with an initial upstroke.

Madrid 288 appears to date from around the end of the eleventh century or the start of the twelfth. Its notation can be situated among many French (including Norman) documents of the second half of the eleventh century. Using the *clivis* as point of reference, the situation may be summarized as follows.

In manuscripts from earlier in the eleventh century, a common way of writing the *clivis* is to ascend near vertically, curve at the top, and descend more or less parallel to the up-stroke. This is what we find in, for example, manuscripts from Corbie, and also from Winchester. In this respect the notation is related to German notations, which also have a rounded *clivis*.³

Many French sources, however, bring the *clivis* up to a point, perhaps leaning into the apex a little. This is the preferred style at, for example, St.-Denis, Cluny, Fleury, Chartres, Tours and Angers, and also in the well-known Dijon tonary with both neumes and alphabetic notation, Montpellier H 159.⁴

3. I give references only to some of the reproductions most conveniently consulted. For Corbie see the Mont-Renaud manuscript *Paléographie musicale XVI*, Paris, BnF, lat. 18010 (*Paléographie musicale III*, pl. 191; HUGLO 1987, pl. XIII) and Paris, BnF, lat. 12051 (HUGLO 1987, pl. XVIII). For England see Susan Rankin's essay in the present volume and in HUGLO 1987, pl. XIV-XV, XVI, XX-XXI), also STÄBLEIN 1975, pl. 6-9.

4. For St.-Denis see, for example, Paris, Bibliothèque Mazarine, 384 (*Paléographie musicale III*, pl. 186; HUGLO 1987, pl. X; CORBIN 1977, pl. 41; also the facsimiles edited by HESBERT 1981 and MAÎTRE 2005; for Cluny, see Paris, BnF, lat. 1087 (SUÑOL 1935, pl. 52; also CORBIN 1977, pl. 40; HUGLO 1987, pl. XII); for Fleury, see Orléans, Bibliothèque municipale, 14 (*Paléographie musicale III*, pl. 182B) and Paris, BnF, lat. 7185 (CORBIN 1977, pl. 28); for Chartres, see Troyes, Bibliothèque municipale, 894 (CORBIN 1977, pl. 25); for Tours, see Tours, Bibliothèque municipale, 184 (*Paléographie musicale III*, pl. 181) or Paris, BnF, lat. 9434 (JAMMERS 1965, pl. 28); for Angers, see Angers, Bibliothèque municipale, 136, 717 and 730 (*Paléographie musicale III*, pl. 185 and 187). Montpellier, Bibliothèque de l'Université, H 159 is reproduced in *Paléographie musicale VIII* (see also CORBIN 1977, pl. 21).

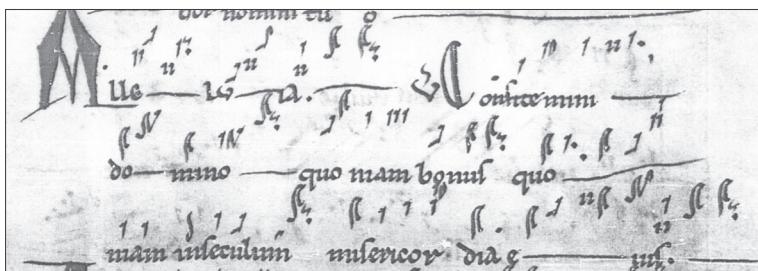


Figure 6. Madrid,
Biblioteca Nacional,
288, fol. 61^r.

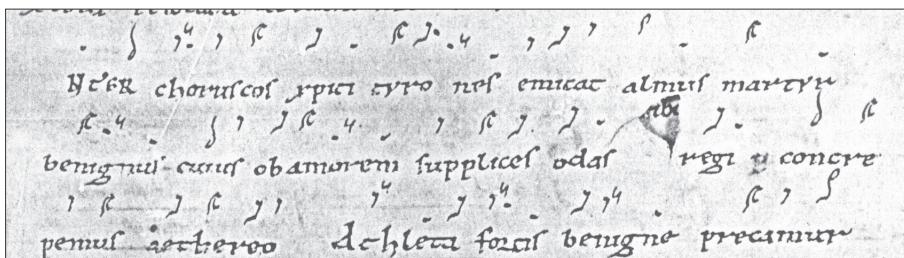


Figure 7. Rouen, Bibliothèque municipale, 453 (A. 425), fol. 97^v.

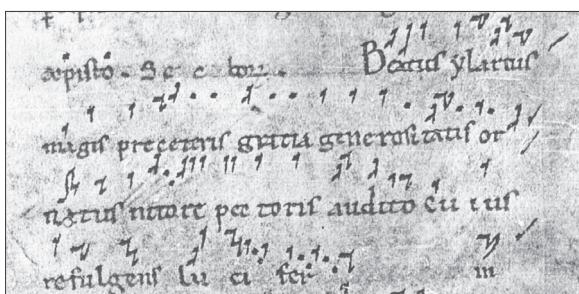


Figure 8. Madrid,
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288, fol. 190^r.

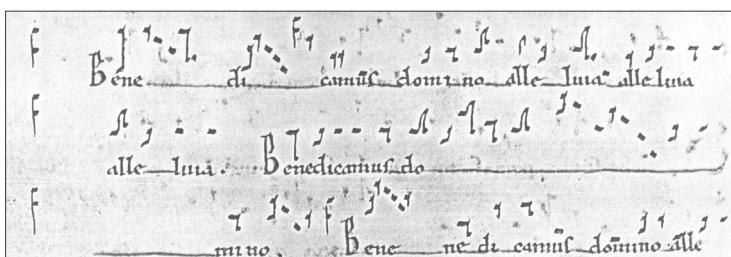


Figure 9. Madrid,
Biblioteca Nacional,
289, fol. 140v.

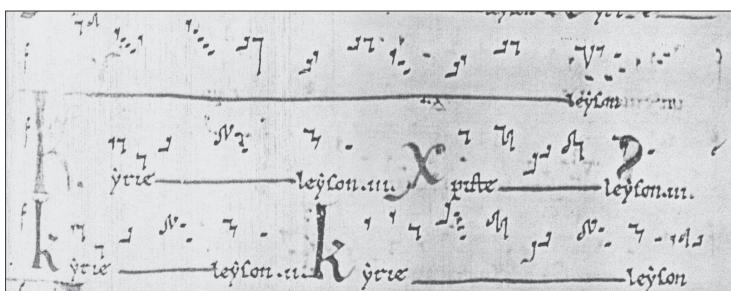
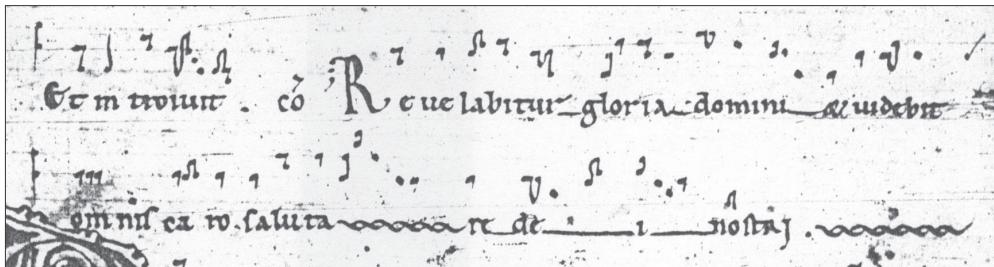


Figure 10. Madrid,
Biblioteca Nacional,
19421, fol. 14.

Figure 11. Madrid, Biblioteca Nacional, Vitrina 20-4, fol. 21^v.

Perhaps influenced by the Dijon tradition, several Norman sources follow this convention. Figures 1-2 are from Jumièges manuscripts, figure 3 is from a Fécamp manuscript.

Later in the eleventh century the incline up to the point becomes flatter and may even dip down before the down-stroke proper begins. This has diastematic significance, the thickened line at the change of direction implying the relatively higher note. Figures 4-5 are from Norman-French or Norman-English manuscripts.

In Madrid 288 many of the compound neumes are written with a pronounced curve. This is so with the *clivis*, whose head has a pronounced dip to the right before the down-stroke begins (fig. 6).

The source which most nearly resembles Madrid 288 in this respect and in the pronounced curvature of its up- and down-strokes is Rouen, Bibliothèque municipale, 453 (A. 425), from St.-Ouen in Rouen (fig. 7).⁵ In Rouen 453 there are one or two instances of the special *punctum* at the semitone step. Only one has so far been discovered in Madrid 288. Rouen 453 is a composite volume, and not all of it may have been written at St.-Ouen; it deserves a closer analysis. But we may reasonably situate the notation in Normandy, and this in turn is an indication that the scribe of Madrid 288 was trained in a Norman tradition. It is even possible that Madrid 288 was written in Normandy and transported to Sicily or South Italy. The question of its provenance is rather complicated, depending on a careful weighing of the repertorial evidence. My own belief is that the book was indeed written in South Italy, but the matter is not of crucial importance for the present discussion.⁶

In later additions to the original manuscript a type of staff notation is found of the type usual in later Sicilian books. The transition (or change, since 'transition' implies something like a mutation of one shape or shapes into another, which cannot be seen here) is therefore demonstrable in one and the same manuscript. Such a phenomenon is known from many books, and it is of interest to look at a few examples. Montpellier H 159 is an example, where later additions employ notation typical of the Burgundian area (presumably being made in Dijon).⁷

5. The musical items notated on these pages, bound at the front and end of a later book, are interesting. They include the Gloria trope set *Christe salus mundi* (fol. 1^v), the sequence *Laudamus te rex Maria genite sempiterne* (fol. 3^v), the Benedicamus song *Lux omni festa populo - O matris alme viscera* (fol. 3^v) and chants for the proper office of St. Benignus (fols. 95^v-98^v). *Laudamus te rex* is also found in Madrid 288 and 19421, otherwise to my knowledge only in the St.-Magloire troper Paris, BnF, lat. 13252, and as one of the post-Conquest additions to Oxford, Bodleian Library, Bodley 775.

6. See DENNERY 2003. In her article, Annie Dennery argues forcefully that the main part of the manuscript was written in Normandy itself. M^{me} Dennery had not, however, read my (unpublished) thesis and therefore does not discuss all the evidence presented there. The published form of my thesis will consider M^{me} Dennery's arguments.

7. *Paléographie musicale VIII*, for example fols. 8^v, 9^v, 13^v, 161^v.

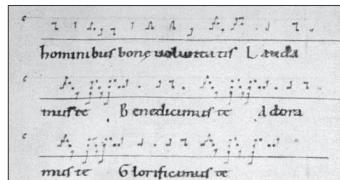


Figure 12. Bologna, Biblioteca universitaria, 2748, p. 88.

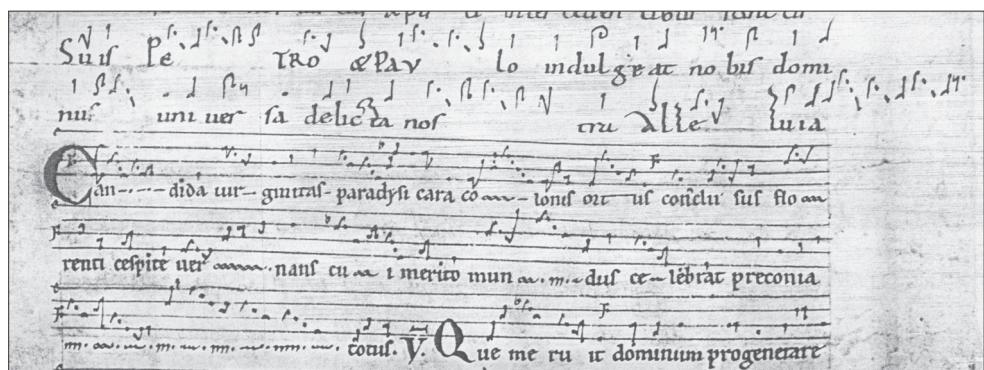


Figure 13. Paris, Bibliothèque nationale de France, lat. 12584, fol. 383r.

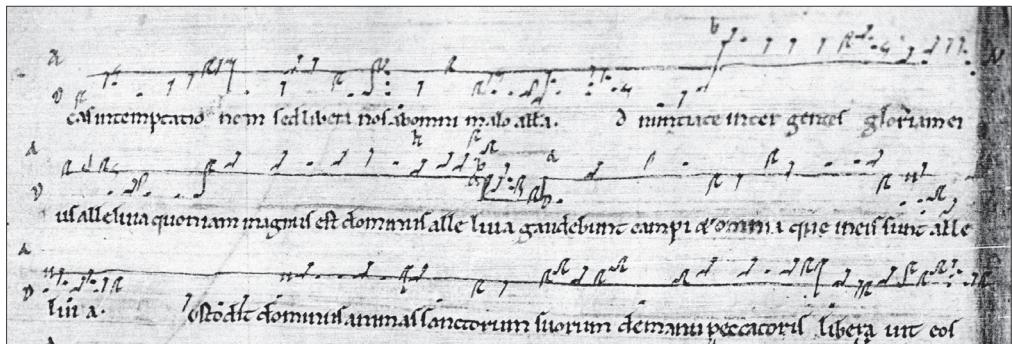
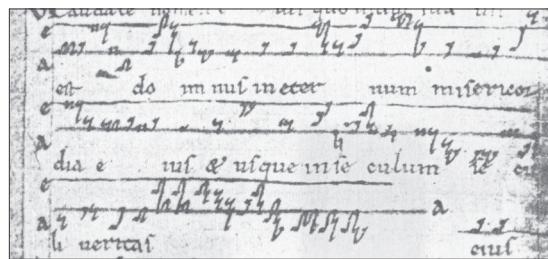
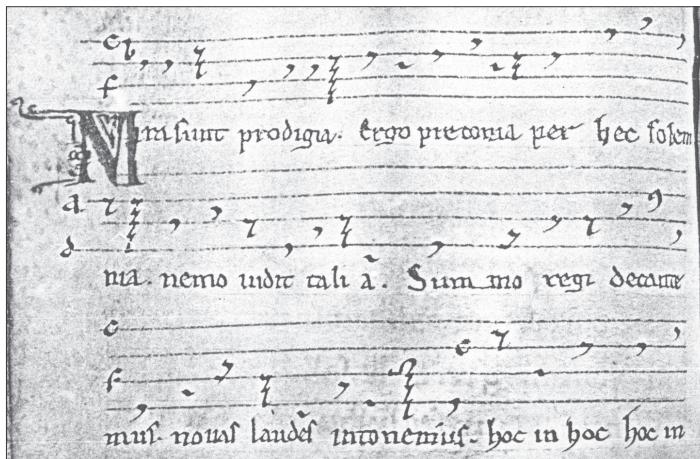


Figure 14. Rouen, Bibliothèque municipale, 537 (A. 438), fol. 89v.

We may now compare examples of the staff notation in some of the Sicilian sources. An important feature is the absence of an upstroke at the start of the *clivis* or *orrectus* (fig. 8-11). This is something one associates with Italian sources of the twelfth century from a wide area north of Rome and up into the northern plain, and one might therefore be tempted to suggest Italian influence in Sicily. There are nevertheless significant differences: in Italian manuscripts the head on the first note of the *climacus* faces right, not left as in Sicily, and the end of the *orrectus* likewise faces right, not left (fig. 12).⁸ Between this notational area and Sicily, however, lie those of Rome, Montecassino and Benevento. For this reason it might be more fruitful to look for the origins of Norman-Sicilian staff-notation in northern France.

8. See the examples in STÄBLEIN 1975, pl. 19 (from Brescia) and pl. 24-25 (from Pistoia). Fig. 12 is taken from the former.

Figure 15. St. Petersburg, Rossiyskaya Natsional'naya Biblioteka, O.VI.6, 18^v.Figure 16. Rouen, Bibliothèque municipale, 666 (A. 506), 92^v-93^r.

The *clivis* without initial upstroke is of course usual in Messine notation, but there are too many dissimilar features for the latter to have been a probable influence in Sicily.⁹

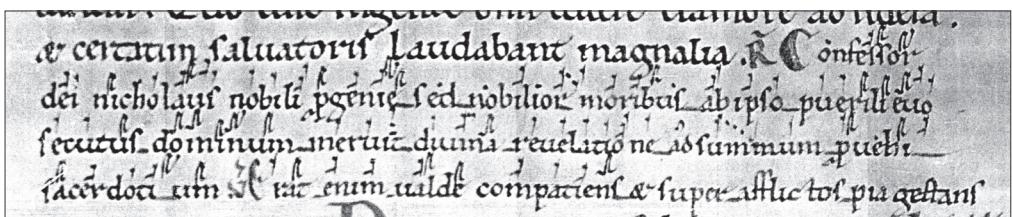
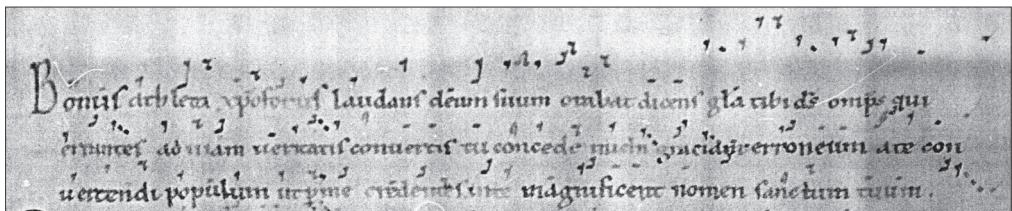
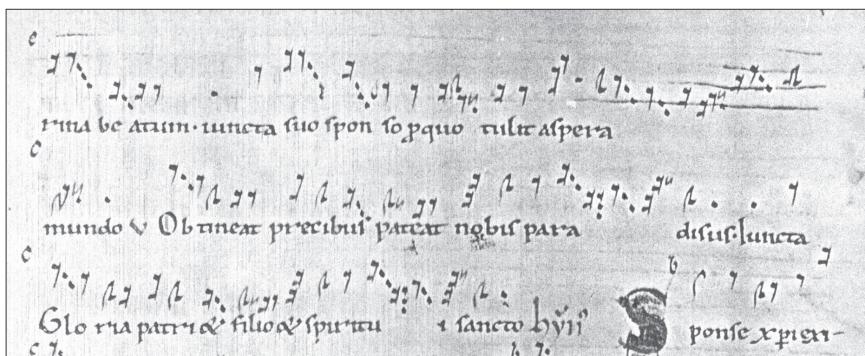
A parallel path to the one followed in Sicily seems to have been taken at St.-Maur-des-Fossés. Figure 13 presents an example from the gradual-antiphoner Paris, BnF, lat. 12584. But here we can see that some characteristic features of the adiastematic neumes have been carried over onto the staff: for example, the *climacus* with right-facing head, and the *tractulus* at the end of the *climacus*, made horizontal instead of diagonal.

What about Normandy itself? The notation of the St.-Évroult troper Paris, BnF, lat. 10508, is a 'classical' example of later Norman notation, the *clivis* having an initial upstroke.¹⁰ A further example is to be found in Rouen, Bibliothèque municipale, 537 (A. 438) from St.-Ouen (fig. 14). It is rather ironic that in St.-Évroult, which had particularly close connections with monasteries in Southern Italy, a different staff-notation was used from the Norman-Sicilian type.

Nevertheless, some Norman-French books do use the alternative form of *clivis* and *porrectus* (fig. 15-16). St. Petersburg O.VI.6 (fig. 15) comes from Meulan, a priory of

9. Interestingly, a manuscript from St.-Corneille-de-Compiègne, Paris, BnF, lat. 17307, exhibits both Messine and square notation, and in the latter the *clivis* lacks the initial upstroke, that is, it retains a Messine *clivis*. (See *Paléographie musicale III*, pl. 169A and 169B.) It was in any case occasionally used in England (see Susan Rankin's essay in the present volume) and is usual in manuscripts from Beauvais. Clearly a wider search is necessary.

10. See *Paléographie musicale III*, pl. 90, and STÄBLEIN 1975, pl. 10.

Figure 17. Naples, Biblioteca nazionale, VIII.B. 51, fol. 31^r.Figure 18. Naples, Biblioteca nazionale, VIII.B. 51, fol. 39^r.Figure 19. Naples, Biblioteca nazionale, XIII.G. 24, fol. 7^r.

Le Bec-Hellouin, while Rouen 666 (fig. 16) is a St.-Ouen manuscript. Were it not for the rather hook-like note-heads in the two scripts one might say with some confidence that the origins of the Norman-Sicilian staff notation should be sought in the tradition from which these two sources emanate. At any rate, there is no 'genealogical' link between this notation and the older neumatic notation in Madrid 288. For Sicily it represents a fresh start.

The Norman-Sicilian manuscripts preserved in Madrid and Sicily are not the only surviving sources from the south with French or French-derived notations. While the manuscript Naples, Biblioteca Nazionale, VI.E.45 has only the older (French) notation, Naples, Biblioteca Nazionale, VIII.B.51 contains both French neumatic and Norman-Sicilian staff-notation (fig. 17-18), just like Madrid 288.

Finally, Naples XIII.G.24 uses 'classical' French staff-notation, comparable with that in the St.-Évrault troper (fig. 19).

Twelfth-century manuscripts from the Holy Land, such as Naples, Biblioteca Nazionale, VI.G.11, from Acre, and Rome, Biblioteca Angelica, 477, from Jerusalem, use a *clavis*

without upstroke, possibly a reflection of Norman-Sicilian practice.¹¹ But until more is known about the use of the 'Messine' *clavis* and *porrectus* in the Île-de-France, it would be unwise to hypothesize further. Another sign which needs to be more accurately pinned down, geographically, is the *climacus* with right-facing head.¹²

This brief discussion of the notations in a group of Norman-Sicilian chant books highlights some of the difficulties of research into chant notation. Although careful observation and analysis may make it possible to assign a particular type of notation to one institution alone, the identification of the scriptorium in question will often depend on factors other than the notation itself, for example on the repertory notated. In the case of Madrid 288 it was possible to find a very similar notation in Rouen 453, from St.-Ouen in Rouen, but we do not have enough repertorial evidence to back up this identification: no troper-sequentia comparable with Madrid 288 survives from St.-Ouen. Conversely, the repertory in Madrid 288 matches later Norman-Sicilian sources very closely, but they use a staff-notation which cannot be derived from the neumes of Madrid 288. Madrid 288 also contains examples of the later staff-notation, so the change can be documented in one and the same manuscript. A possible scenario might be that Madrid 288 was made in South Italy by a scribe trained in the Norman neumatic tradition, then taken to Palermo (which is where it certainly ended up) and was supplemented with pieces in the later notation in use there at the time.

The later Norman-Sicilian notation matches no other type precisely. There are strong structural similarities with the notation of Meulan, a priory of Bec (Leningrad O.V.I. 6), but the Sicilian pen-style is more straightforward than that of the Meulan source. As far as can be told at present, a Sicilian scriptorium developed a new type of notation. It would be a useful exercise to document and compare other examples of such new starts in the history of chant notation. The replacement of adiastematic neumes by staff-notation offers many examples, and one would like to know if the break with the past which took place in Sicily was the norm, and how often a more gradual transition was effected, as at St.-Maur-des-Fossés. Taking a broad view, while the importance of the establishment of musical notation back in the ninth century can hardly be overestimated, the introduction of staff-notation two centuries later also poses fascinating questions for future research.

DAVID HILEY

BIBLIOGRAPHY

ARNESE 1967 : Arnese Raffaele, *I codici notati della Biblioteca nazionale di Napoli*, Florence, Olschki, 1967.

BERNARD 1966 : Bernard Madeleine, *Répertoire de manuscrits médiévaux contenant des notations musicales*, II. *Bibliothèque Mazarine*, Paris, CNRS, 1966.

11. For Naples VI.G.11, see *Paléographie musicale II*, pl. 44, and ARNESE 1967, pl. xxii-xxiii (after p. 168). For Angelica 477, see *Paléographie musicale II*, pl. 43. Compare also Paris, Bibliothèque Mazarine, 536, a pontifical apparently made for the Latin Kingdom of Constantinople. The plate given in BERNARD 1966, pl. VII, is rather small (cf. description p. 65).

12. The IHRT/CNRS project MANNO (*Manuscrits notés en neumes en Occident*) and the catalogues in the on-going series *Manuscrits notés des bibliothèques publiques de France* will go a long way toward putting research on a firm basis.

CHIBNALL 1969 : Chibnall Marjorie ed. and transl., *The Ecclesiastical History of Ordericus Vitalis*, 6 vols., Oxford, Clarendon, 1969-80.

CORBIN 1977 : Corbin Solange, *Die Neumen*, Cologne, Hans Gerig, 1977.

DENNERY 2003 : Dennery Annie, « Les énigmes du tropaire-prosaire ms. Madrid B.N. 28 », *Revista de musicología*, XXVI (2003), p. 381-414.

HESBERT 1981 : Hesbert René-Jean ed., *Le Graduel de St. Denis*, Paris, Nouvelles éditions latines, 1981.

HILEY 1980 : Hiley David, « The Norman chant traditions – Normandy, Britain, Sicily », *Proceedings of the Royal Musical Association*, CVII (1980-81), p. 1-33.

HILEY 1983 : Hiley David, « Quanto c'è di normanno nei tropari siculo-normanni? », *Rivista italiana di musicologia*, XVIII (1983), p. 3-28.

HILEY 2000 : Hiley David, « The Historia of St. Julian of Le Mans by Letald of Micy: some comments and questions about a North French office of the early eleventh century », in Margot E. Fassler & Rebecca A. Baltzer eds., *The Divine Office in the Latin Middle Ages. Methodology and Source Studies, Regional Developments, Hagiography. Written in Honor of Professor Ruth Steiner*, Oxford, Oxford University Press, 2000, p. 444-462.

HILEY 2001 : Hiley David, *Das Repertoire der normanno-sizilischen Tropare I: Die Sequenzen*, Monumenta Monodica Medii Aevi, XIII, Kassel, Bärenreiter, 2001.

HUGLO 1987 : Huglo Michel ed., *Musicologie médiévale: Notations et séquences. Table ronde du CNRS à l'IRHT d'Orléans-La Source, 10-12 Septembre 1982*, Paris, Champion, 1987.

JAMMERS 1965 : Jammers Ewald, *Tafeln zur Neumenschrift*, Tutzing, Hans Schneider, 1965.

MAÎTRE 2005 : Maître Claire ed., *Graduel de l'abbaye royale de Saint-Denis: début XI^e siècle*, Arles, Actes Sud, 2005.

Paléographie musicale II : Le répons-graduel 'Justus ut palma', reproduit en fac-similé d'après plus de deux cents antiphonaires manuscrits d'origines diverses du IX^e au XVII^e siècle, Paléographie musicale, II, Solesmes, Abbaye Saint-Pierre, 1891.

Paléographie musicale III : Le répons-graduel 'Justus ut palma', reproduit en fac-similé d'après plus de deux cents antiphonaires manuscrits d'origines diverses du IX^e au XVII^e siècle, Paléographie musicale, III, Solesmes, Abbaye Saint-Pierre, 1891.

Paléographie musicale VIII : Antiphonarium tonale missarum (XI^e siècle). Codex H. 159 de la Bibliothèque de l'École de Médecine de Montpellier, Paléographie musicale, VIII, Solesmes, Abbaye Saint-Pierre, 1901.

Paléographie musicale XVI : L'antiphonaire du Mont-Renaud, antiphonaire de la messe et de l'office, X^e siècle, collection privée, Paléographie musicale, XVI, Solesmes, Abbaye Saint-Pierre, 1955-1956.

STÄBLEIN 1975 : Stäblein Bruno, *Schriftbild der einstimmigen Musik*, Leipzig, VEB, 1975.

SUÑOL 1935 : Suñol Grégoire, *Introduction à la paléographie musicale grégorienne*, Tournai, Desclée, 1935.

10

The earliest developments in square notation: twelfth-century Aquitaine

The notation consisting of superimposed dots, known as 'Aquitanian' notation, is found in about 330 manuscripts and fragments of southern French origin.¹ This number excludes numerous manuscripts copied in Spain after the suppression of the Visigothic rite in the second half of the eleventh century.² Half of these 330 manuscripts are now kept at the Bibliothèque nationale de France (BnF); the others in the libraries of the French *départements* or outside France (five are in the United States, for example). Among 220 manuscripts from St. Martial in Limoges at the BnF, ninety are notated throughout or include notated additions; of 109 manuscripts from St. Pierre in Moissac, twenty are fully or partially notated.

The adjective 'Aquitanian' that is attached to this notation is of relatively recent origin. In fact, Edmond de Coussemaker³, and then Dom Joseph Pothier⁴ recognized the distinctive morphology of the notation – calling it a notation consisting of superimposed dots ('notation à points superposés'). The authors of the first volume of the *Paléographie musicale* added a geographical indication to the descriptive term: a notation of Aquitanian detached dots ('notation à points détachés aquitains')⁵, due to the fact that its use extends especially throughout the former Roman province of Aquitaine, whose size varied greatly during the first nine centuries of our era.

The notation of superimposed dots was also used in Provence⁶, in Septimania⁷ and in all of the dioceses of the Occitan region⁸, that is, in the southern French regions where

1. Essential bibliography: *Paléographie musicale II*, pl. 83-107; *Paléographie musicale XIII*, p. 54-211; WAGNER 1912, p. 186-192; SUÑOL 1935, p. 260-282; STÄBLEIN 1975, p. 146-155 (Abbild. 31-38); CORBIN 1977, p. 94-100; HUGLO 1982; COLETTE 1995; HOURLIER 1996, p. 22-26; PHILLIPS 2000; FISCHER 2001, p. xxvij-xxxij; EMERSON 2002; COLETTE 2006, p. 14-15.

2. ZAPKE 2007, p. 247-427.

3. COUSSEMAKER 1852, p. 164.

4. POTHIER 1880, p. 44 [p. 83].

5. *Paléographie musicale I*, p. 188.

6. From this, the name of 'aquitano-provençale' was proposed in 1912 by Peter Wagner (see n. 1 above) for this notation, which was also used in the north of the region of the 'langue d'oc', that is, in Auvergne and Limousin.

7. MAS 1982.

8. On the map of the 135 dioceses of France before the Revolution of 1789, 32 dioceses of the South, between the Alps, the Mediterranean, the Pyrenees and the Atlantic, used Aquitanian notation; this is the region where the 'langue d'oc' was spoken.

the 'langue d'oc' was spoken. Nevertheless, the term 'langue d'oc notation' would only be adequate if it also included Auvergne and the Limousin region. Consequently, the simplest solution was to keep the conventional term of 'Aquitanian' notation, which has been adopted in all publications on medieval music.

THE CODICOLOGICAL ANALYSIS OF AQUITANIAN MANUSCRIPTS

By 'Aquitanian manuscripts' one must understand in the first place graduals, antiphoners, and tropes-prosers written in the Aquitaine, principally in the scriptoria of Albi, Toulouse, Auch and Moissac, and secondarily the manuscripts of St. Martial in Limoges, which adopted certain methods of working with parchment from northern France, as well as those from the southern Limousin region.⁹

John Emerson's analysis of the oldest Aquitanian manuscript, the gradual and antiphoner of Albi, shows that the parchment in quaternions was ruled following an older style,¹⁰ while the gradual of Gaillac was ruled following the newer style.¹¹ Methods of preparing parchment varied from one scriptorium to another, but did not change often.

The main characteristic of Aquitanian notated manuscripts is their large size, especially by comparison with the graduals and antiphoners of northern France or from the Germanic region¹²: it is difficult to explain this large size by the need to be able to sing from the book at the lectern, because the text script is so small that one cannot read it at a distance. One possible explanation may be the transfer of Visigothic practices of treating parchment to the Aquitaine region, because the capital of the Visigothic kingdom in the sixth century was the city of Toulouse: indeed, Aquitanian manuscripts kept several compositions from the Mozarabic liturgy, albeit sung to different melodies.¹³

The second characteristic of the large notated Aquitanian manuscripts is their page layout: the adoption of notation in the Aquitaine did not transform traditional methods of preparing the manuscripts, because the scribes ably used pairs of lines to trace the texts of the liturgical chants, leaving the odd numbered lines for the notator as middle lines on which the musical notation could be positioned. Occasionally, to gain space, the texts of the chants were written on the odd numbered lines, and the melody of the first line was traced once in the margin at the top of the page, using the even-numbered lines of those ruled; examples are found in the gradual of Gaillac and in the office *De conceptione Mariae* in a manuscript from Moissac.¹⁴

9. Regarding the decoration, see Danielle GABORIT-CHOPIN 1969. On the musical tradition, see HUGLO 1971, p. 154-156.

10. EMERSON 2002, p. xxxij-xxxijj.

11. COLETTE 2006, p. ix.

12. See the table of notated Aquitanian manuscripts in HUGLO 1988, p. 92 and 95 (Tableau IX: 'Format de l'antiphonaire du x^e au xiii^e siècle').

13. HUGLO 1952; 1955.

14. Paris, BnF, lat. 1688 (twelfth century): cf. *Catalogue Lauer II* p. 126; DUFOUR 1972, p. 112, n. 42; BLUME & DREVES 1887, V (1889), p. 47-51; CORBIN 1952; HUGHES 1994, n. YC51.

THE PALEOGRAPHIC ANALYSIS OF AQUITANIAN NOTATION

The shape of the ‘superimposed dots’ of Aquitanian musical notation is presented in a table in the *Paléographie musicale* and in various works treating Aquitanian notation.¹⁵ The characteristics of this notation are first of all its axis [/ 1] – as opposed to that of French notation from northern France [l \] – and the separation of all forms that are otherwise connected in French, German and Italian neumatic notations, except for the torculus, which is composed of a dot surmounted with a circular arc [.]), and for the quilismatic group.¹⁶

All of the other neume forms are separated into dots, placed at the height that they would occupy on an imaginary staff of four or five lines: for more precision, a small mark at the end of the line, the guide mark or *custos*, indicates on which pitch the melody will continue at the beginning of the next line. In manuscripts notated by Adémar de Chabannes, the *custos* is replaced by the *eq* when the last note of the line is the same as that at the beginning of the following line.¹⁷

Thus, Aquitanian notation acquired sufficient diastemacy by the end of the tenth century, even if it was approximate, and it reached a rigorous precision from the beginning of the eleventh century onwards, thanks to a middle line traced by dry point. Beginning in the twelfth century, this dry-point line was written over in red lead paint, a color which did not necessarily indicate half steps, as in the Guidonian staff adopted in Provence and in the Dauphiné in the twelfth century.¹⁸

The advantage of this system is that one sees the melody precisely, even in the absence of clefs a half century before the invention of the Guidonian staff: it is thus possible to reconstruct the early psalm tone of the third mode and the modal recitation of compositions in the fourth tone, as, for example, the Easter introit *Resurrexi*.¹⁹

The inconvenience of the system is the absence of a marker for the half step, which sometimes makes hypothetical the reconstruction of chant preserved uniquely in the Aquitanian tradition, such as the elegies and other versified compositions in the manuscript BnF, lat. 1154.²⁰ Did the author of the short treatise on music theory, *Dulce ingenium musicæ*²¹, compensate for this inconvenience by halving the space reserved for the half step in his table of the four aspects of the fifth that determine the constitution of the four authentic modes of Gregorian chant?²² Abbo of Fleury, or the anonymous author of the treatise from Fleury, knew the Aquitanian notation in use at his priory of La Réole well, as did various musical scribes from the abbey of Fleury, independently of Abbo.²³

15. *Paléographie musicale XIII*, p. 154-159; SUÑOL 1935, p. 260-282; PHILLIPS 2000, p. 499; CORBIN 1977 foldout table at the end of the book.

16. See the discussion of the origins of Aquitanian notation below.

17. This is overlooked in James GRIER’s chapter, ‘Adémar’s Musical Notation’ in GRIER 2006, p. 67-77 and 280-290.

18. *Paléographie musicale XIII*, p. 160-165; STÄBLEIN 1975, p. 152; *Paléographie musicale I*, plates 90-93, 95-96.

19. GAJARD 1954. For a confirmation of this reconstruction, see CARDINE 1954; COLETTE 1993; and see the facsimile of the introit *Resurrexi* in the gradual of Gaillac (Paris, BnF, lat. 776, fol. 71^v), in PHILLIPS 2000, p. 497, ex. 57.

20. On this valuable tenth-century manuscript, see *Catalogue Lauer I*, p. 421-422; and BARRETT 1997.

21. The authorship of this treatise edited by Michael Bernard in 1987 must probably be restored to Abbo of Fleury. See HUGLO 2008.

22. HUGLO 1982, p. 257, and the better reproductions in HUGLO 2008, p. 232 (Fig. 3a-3b).

23. For example, the offices of St. Foy (of Conques) and of St. Madeleine (of Vézelay), in Paris, BnF, nouv. acq. lat. 443, dismembered from Orléans, Bibliothèque municipale, ms. 347: cf. MOSTERT 1989, p. 182

Another inconvenience, which would later have repercussions for Aquitanian square notation, is the reduction of the *virga*, *bivirga* and *trivirga*, *virga strata*, the *distropha* and the *tristropha*, and finally, of the *pressus* to one or more dots. The loss of nuance in these last neumes for special effects is especially regrettable, because the effects are not known to us today, but were certainly executed by singers of major monasteries. Thus, from the end of the thirteenth century onwards, Aquitanian square notation would be uniformly comprised of square notes on a staff. In this new form of the notation, the *podatus* and the *scandicus* consist of squares moving upwards stepwise to the right.

THE ORIGINS OF AQUITANIAN NOTATION

According to Paolo Ferretti, followed by Dom Grégoire Suñol, Aquitanian notation developed from Breton notation²⁴, but even though the design of the *torculus* is identical in both notations, it has not been proven that this filiation can be applied to other neume forms of the two notations, particularly the *quilisma*. For Bruno Stäblein, all medieval musical notations derived from Paleofrankish notation, thought in his day to have been invented around 800.²⁵ But since similarities of form between this older notation and Breton and Messine notations cannot be denied, it is difficult to maintain that these other neumatic notations derive from Paleofrankish notation. Another demonstrable explanation must be found.

In fact, the origin of Aquitanian notation follows from the preceding observation about the two neumatic forms that had not been separated into individual elements by southern French notators, the *torculus* and *quilisma*, and from more general considerations, such as the general calligraphic appearance and axis of these notations.

The early Messine or Lorraine notation, of which a good example survives in the *melodiae* of the alleluias with prosulas added at the end of the antiphoner of Compiègne,²⁶ offers to the observer above all a general appearance very similar to that of the earliest attempts at Aquitanian notation. According to Marie-Noël Colette, this 'proto-Messine notation has common features with proto-Aquitanian notation'.²⁷ I should add that the axis of the two notations is the same, although in the oldest witnesses of the two notations in question²⁸, the scribe does not seem to attach any importance to this question and does not rigorously trace the axis of either ascending or descending neumes. The reduction of accent neumes to dots, common to the two notations, was probably dictated by the necessity to fix the repertory in writing and by a constant tendency towards diastemacy.²⁹

(BF 874-875) and 238 (BF 1237-1238); PELLEGRIN 1988, p. 259. It is noteworthy that this twelfth-century manuscript was not known to Abbo of Fleury.

24. See n. 1 above for citations of the works by these two authors.

25. STÄBLEIN 1975, p. 27 (table of the filiation of different medieval notations).

26. See the facsimile in COLETTE 2003.

27. COLETTE 2003, p. 6. This observation no doubt explains the confusion in APEL 1958, plate VIII facing p. 123; here Apel reproduces fol. 30^r of the antiphoner of Compiègne, Paris, BnF, lat. 17436, claiming that its notated sequence is the oldest example of Aquitanian notation.

28. About seven examples of proto-Aquitanian notation exist: the passages notated in Albi, Bibliothèque municipale, ms. 44; Montpellier, Bibliothèque de la Ville, ms. 4 (fol. 80^r: responsory for the Dedication of the Church); and Paris, BnF, lat. 1154 and 1240 (cf. HOURLIER 1996 p. 23, plate 9). The comparative table of notations written by the notators of the gradual-antiphoner of Albi 44 that John Emerson kindly recopied for me in January 1992 was unfortunately not reproduced in the definitive edition of his work.

29. WAGNER 1912, chapters XII and XIII.

The Quilisma from the Question Mark

| PERIOD | down ↘ | QUESTION-MARK | up ↗ |
|--|-----------|--------------------------------------|-----------|
| Lecture | | | |
| [C] | • • • • • | • • • • • | • • • • • |
| ... a saéculo nomen tu- um ... nostrum ne timeré-mus te? | | | |
| Epistle | | | |
| [C] | • • • • • | • • • • • | • • • • • |
| ... ego hodie gé-nu-i te? | | | |
| Gospel | | | |
| [C] | • • • • • | • • • • • | • • • • • |
| ... vos estis sal ter-rae ... erit, in quo sa-li-é-tur? | | | |
| Passio | | | |
| [C] | • • • • • | [F] | • • • • • |
| ... interrogávit e- -os ... quem quae-ri-tis? | | | |
| <u>The question-mark in the Carolingian MSS:</u> | | | |
| ? from St. Denis (see Jean Vezin in <u>Scriptorium</u> 34 (1980), p.181.) | | ? from the East of France: ✓ | |
| Quilisma of French notation: ✓ | | Quilisma of Messine not.: ✓ | |
| Quilisma of St-Gall: ✓ | | ? from Tours and St-Amand: ✓ | |
| Quilisma of classic Aquit. notation: ✓ | | Quilisma of Proto Aquit. notation: ✓ | |

Figure 1. The Question Mark in Manuscripts from the Abbey of St. Denis.

Because the musicians using it were looking for precise methods of writing music, Aquitanian notation arrived at a satisfactory solution faster than did its Messine cousin.

In the category of neumes for special vocal effects in Aquitanian notation, the *quilisma* brings further proof for the connection between the two notations under consideration. Melodic analysis of the different recitations in Gregorian chant shows that interrogative phrases of discourse do not end with a cadence, as at the end of a phrase in direct style, but with a slight raising of the voice, leaving the listener in suspense.³⁰ From the beginning of the Carolingian Revival onwards³¹, a final question was marked by a sign in zigzag form, sometimes preceded by a punctum and finishing with an ascending mark (fig. 1).

30. WAGNER 1912, p. 89.

31. VEZIN 1980. The first examples are found in the six-volume Bible of Maurdramme, abbot of St. Denis from 772 to 781, and in the gospels of Godescalc, written for Charlemagne between 781 and 783.

As seen in figure 1, the first sign in the shape of the number two, with an angular beak and a raised tail, differs from the other zigzag forms; this type of question mark is also found in literary or scientific manuscripts from Tours, Metz, and other locations, but with a rounding off of the initial beak shape. This punctuation sign became the symbol for the *quilisma* in Metz and the Lorraine region. It passed into the proto-Aquitanian notation, with its opening angle brought closer together, resulting in the shape that became common in the eleventh century, as shown in figure 1.

The Aquitanian *torculus*, in the form of a dot surmounted by a circular arc, is identical to the Breton *torculus* with its separate elements, signifying the elongation of the first note. But this rounded form comes from Paleofrankish notation, which remained in use for a long time at the abbey of St. Amand.

Finally, there is the Aquitanian *pes stratus*. This neume marks the rising cadences (CDD, DEE, FGG) of the *melodiae* or alleluia sequences in Aquitanian troper-prosers³², and is found again in the chants that do not belong to the 'primitive layer' of the Carolingian gradual.³³ In Aquitaine, the *pes stratus* separated the first element and reduced it to a dot preceding the second element, the *oriscus*, although in neumatic notations the two elements are connected.³⁴ The separation of the two elements is normal in this notation of superimposed dots, but here the form of the *oriscus* is a reduced version of the *pes stratus* of French neumatic notations, and more precisely that of the sequences of ms. S. 28 in the Bibliothèque municipale of Autun.³⁵ After the division of the Empire in 843, Lotharingia, which extended from the North Sea to the Mediterranean, included the three dioceses of Metz, Toul and Verdun, part of Burgundy and of Provence, which multiplied cultural exchanges between these regions.³⁶

AQUITANIAN SQUARE NOTATION

In the twelfth century, Aquitanian notation, having arrived at a satisfactory level of diastemacy, seems not to have evolved further towards the squaring of the dots placed around the medial line. The enlargement of the pen permitted the thickening of the dot, which during the course of the twelfth century took the form of a small square or rectangle or even of a lozenge, using the marker of the medial line or of a staff of four lines traced by

32. See for example the facsimile of the troper-sequentiary of Moissac (COLETTE 2006, fols. 76^v-87^v and 87^v-170^v).

33. The list of chants that employ the *pes stratus* is given in CARDINE 1966, p. 37, in the margin at the offertory *Elegerunt* of December 26. The *pes stratus* is found again, though more rarely, in the Antiphoner, as, for example, in the final melisma of the antiphon *O crux benedicta quae sola*. See *Antiphonale monasticum* 1934, p. 1046.

34. See the table of the forms of *pes stratus* proper to different neumatic notations in *Paléographie musicale XIII*, p. 187, no. 15 (Aquitanian *pes stratus*), no. 9 (French *pes stratus*).

35. The facsimile of the alleluia sequences added to manuscript S.28 (24) of the Bibliothèque municipale in Autun appears in STÄBLEIN 1961, p. 1-33 (Abb. 1, facing p. 16). The script of these additions is dated from the last third of the ninth century by BISCHOFF 1998, p. 37, n. 158a.

36. HUGLO 1999. French and Aquitanian neumatic notations are used together in the following manuscripts: Apt, Basilique Sainte Anne, ms. 4 (18); Avignon, Musée Calvet, ms. 220 (Apt); Moulins, Bibliothèque municipale, ms. 14 (Souvigny); Vatican, Biblioteca Apostolica Vaticana, ms. Barberini 564 (St. Chaffre-le-Monastier), ms. Borghese 5 A 1 (Avignon), ms. Reginensis 321 (Brioude).

dry point³⁷ or in color.³⁸ It was only at the beginning of the fourteenth century, depending on the place, that the dot became square, enlarged by three or four millimeters on each side.³⁹ This square notation deliberately ignored the *oriscus*, the distinction between the *distropha* or *tristropha* and the *bivirga* or *trivirga* – so-called expressive or ‘special’ notes introducing a vocal effect or embellishment in an otherwise unadorned monophony.

During this evolution, two neumes, the *podatus* and *scandicus*, retained the form that notators had given them *ab initio*. But these two neumes were now drawn as stepwise shapes in two or three steps. Unfortunately, for the interpretation of chant, this manner of writing resulted in a loss of nuances once required by ‘special neumes’ that had been traced in the same way, such as three notes written stepwise: the *scandicus*, the *salicus* and the quilismatic group of notes. The same went for episemas and other notes that had helped singers perform the rhythms of antiphon and responsory texts with great nuance.⁴⁰ It hardly seems likely that oral tradition would have preserved until the eighteenth century the subtleties of interpretation suggested by the adiastematic neumes of Bavaria and Austria that were notated with care until the fourteenth or even fifteenth century.

This uniform notation of groups of ascending notes permits us today to distinguish with certainty an Aquitanian manuscript of the fifteenth century from a manuscript of the same period written and notated in northern France.⁴¹

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Translated by Barbara Haggh

BIBLIOGRAPHY

Antiphonale monasticum 1934 : *Antiphonale monasticum pro diurnis horis*, Tournai, Desclée, 1934.

APEL 1958 : Apel Willi, *Gregorian Chant*, Bloomington, University of Indiana Press, 1958.

BARRETT 1997 : Barrett Sam, « Music and Writing: On the Compilation of Paris, Bibliothèque nationale, lat. 1154 », *Early Music History*, XVI (1997), p. 55-96.

BISCHOFF 1998 : Bischoff Bernhard, *Katalog der festländischen Handschriften des neunten Jahrhunderts*, ed. Birgit Ebersperger, Wiesbaden, Harrassowitz, 1998.

BLUME & DREVES 1887 : Blume Clemens & Dreves Guido Maria, *Analecta hymnica medii aevi*, 55 vol., Leipzig, O.R. Reisland, 1887-1922.

CARDINE 1954 : Cardine Dom Eugène, « La corde récitative du troisième ton psalmodique dans l’ancienne tradition sangallienne », *Études grégoriennes*, I (1954), p. 47-52.

CARDINE 1966 : Cardine Dom Eugène ed., *Graduel neumé*, Solesmes, Abbaye Saint-Pierre, 1966.

37. See *Paléographie musicale II*, plate 99, and the facsimile of a fragment reproduced on the occasion of launching the *Paléographie musicale* in 1889; this fragment is taken from a collection of fragments in-folio at the workshop of the *Paléographie musicale* at the Abbey of Solesmes. They are online at <<http://www.archives.sarthe.com/pageLibre00010c2f.asp>>. See SAULNIER 2010.

38. For example, in the troper-proser of St. Leonard in Limoges (Paris, BnF, lat. 1086), reproduced in HUGLO 1978; for Carthusian manuscripts, see *Paléographie musicale II*, plates 94-95, 105-106, and HOURLIER 1996, p. 26, plate 11, with commentary.

39. See *Paléographie musicale II*, plate 104, and various fragments at the Archives of the Haute-Garonne in Toulouse, ms. 111 (I.5).

40. On this subject, see COLETTE 1970, p. 417-423 and plate VI. My thanks to my colleague for having shared her thoughts with me on the subject of Aquitanian notation.

41. For example, the processional of Gellone (*Paléographie musicale II*, plate 107; HUGLO 2004, p. 59-161, F-179), or the processional of a Cluniac priory from southern France (*ibid.*, p. 158, F-175).

Catalogue Lauer I : Philippe Lauer ed., *Catalogue général des manuscrits latins I : n° 1-1438*, Paris, Bibliothèque nationale de France, 1939.

Catalogue Lauer II : Philippe Lauer ed., *Catalogue général des manuscrits latins I : n° 1439-2692*, Paris, Bibliothèque nationale de France, 1940.

COLETTE 1970 : Colette Marie-Noël, « Essai de détermination de la valeur sémiologique des notations aquitaines (Graduel d'Albi, B.N., Lat. 776) », *Annuaire de l'École Pratique des Hautes Études*, IV^e Section, *Sciences philologiques et historiques* (1970-71), p. 417-423.

COLETTE 1993 : Colette Marie-Noël, « Le choix de Si et Mi dans les graduels aquitains, XI^e-XII^e siècles », *Revista de musicología*, XVI (1993-94) [Actas del XV Congreso de la Sociedad internacional de musicología, 'Culturas musicales del Mediterráneo y sus ramificaciones', Madrid, 3-10/IV/1992], p. 2268-2296.

COLETTE 1995 : Colette Marie-Noël, « Le graduel-antiphonaire Albi, Bibliothèque municipale 44 : une notation protoaquitaine rythmique », in László Dobszay ed., *International Musicological Society, Study Group Cantus Planus, Papers Read at the Sixth Meeting, Eger, Hungary, 1993*, Budapest, Institute of Musicology, 1995, p. 117-139.

COLETTE 2001 : Colette Marie-Noël, « Il manoscritto Paris, Bibliothèque nationale de France, lat. 776 », in Nino Albarosa et al. eds., *Il codice Paris, Bibliothèque nationale de France, lat. 776, sec. XI, Graduale di Gaillac*, Padua, La Linea Editrice, 2001, p. vii-xxiv.

COLETTE 2003 : Colette Marie-Noël, « Séquences et *versus ad sequentias* dans l'Antiphonaire de Charles le Chauve (Paris, BnF lat. 17436) », *Revue de musicologie*, LXXXIX (2003), p. 5-29.

COLETTE 2006 : Colette Marie-Noël, *Tropaire, Séquentiaire, Prosaire, Prosulaire de Moissac*, Paris, Société française de musicologie, 2006.

CORBIN 1952 : Corbin Solange, « L'office en vers *Gaude mater ecclesia* pour la Conception de la Vierge » in Higinio Anglès ed., *Atti del Congresso di Musica Sacra, Roma, 25-30 Maggio 1950*, Tournai, Desclée, 1952, p. 284-286.

CORBIN 1977 : Corbin Solange, *Die Neumen*, Palaeographie der Musik, I/3, Köln, Arno Verlag, 1977.

COUSSEMAKER 1852 : Coussemaker Edmond de, *Histoire de l'harmonie au Moyen-Âge*, Paris, V. Didron, 1852.

DUFOUR 1972 : Dufour Jean, *La bibliothèque et le scriptorium de Moissac*, Genève, Droz, 1972.

EMERSON 2002 : Emerson John, *Albi, Bibliothèque municipale Rochegude, Ms 44, A Complete Ninth-Century Gradual-Antiphoner from Southern-France*, Musicological Studies, LXXVII, Ottawa, Institute of Mediaeval Music, 2002.

FISCHER 2001 : Fischer Rupert, « I neumi del codice Paris, BnF lat. 776 », in Nino Albarosa et al. eds., *Il codice Paris, Bibliothèque nationale de France, lat. 776, sec. XI, Graduale di Gaillac*, Padua, La Linea Editrice, 2001.

GABORIT-CHOPIN 1969 : Gaborit-Chopin Danielle, *La décoration des manuscrits à Saint-Martial de Limoges et en Limousin du IX^e au XII^e siècle*, Mémoires et Documents publiés par la Société de l'École des Chartes, Genève, Droz, 1969.

GAJARD 1954 : Gajard Dom Joseph, « Les récitations modales des troisième et quatrième modes dans les manuscrits bénéventains et aquitains », *Études grégoriennes*, I (1954), p. 9-45.

GRIER 2006 : Grier James, *The Musical Work of a Medieval Monk. Adémar de Chabannes in Eleventh-Century Aquitaine*, Cambridge, Cambridge University Press, 2006.

OURLIER 1996 : Hourlier Dom Jacques, *La notation musicale des chants liturgiques latins/The Musical Notation of Latin Liturgical Chants*, Solesmes, La Froidfontaine, 1996.

HUGHES 1994 : Hughes Andrew, *Late Medieval Liturgical Offices*, Toronto, Pontifical Institute of Mediaeval Studies, 1994.

HUGLO 1952 : Huglo Michel, « Source hagiopolite d'une antienne hispanique pour le dimanche des Rameaux », *Hispania sacra*, V (1952), p. 367-374.

HUGLO 1955 : Huglo Michel, « Les « preces » des graduels aquitains empruntées à la liturgie hispanique », *Hispania sacra*, VIII (1955), p. 361-383.

HUGLO 1971 : Huglo Michel, *Les tonaires : inventaire, analyse, comparaison*, Paris, Société française de musicologie, 1971.

HUGLO 1978 : Huglo Michel, « Note sur la musique de la prose *Aquas plenas amaritudine* », *Lom Stavkirke forteller*, Forntidsminner, 65 (Oslo, 1978), p. 159-169.

HUGLO 1982 : Huglo Michel, « La tradition musicale aquitaine. Répertoire et notation », in VICAIRE 1982, p. 253-268.

HUGLO 1988 : Huglo Michel, *Les livres de chant liturgique*, Typologie des sources du Moyen Âge occidental, LII, Turnhout, Brepols, 1988.

HUGLO 1999 : Huglo Michel, « Division de la tradition monodique en deux groupes 'est' et 'ouest' », *Revue de musicologie*, LXXXV (1999), p. 5-28.

HUGLO 2004 : Huglo Michel, *Les manuscrits du processionnal*, Répertoire International des Sources Musicales B XIV 2, Henle, Munich, 2004.

HUGLO 2008 : Huglo Michel, « Le traité de musique d'Abbon de Fleury, identification et analyse », in Annie Dufour & Gillette Labory eds., *Abbon de Fleury, un abbé de l'an mil*, Turnhout, Brepols, 2008, p. 225-239.

MAS 1982 : Mas Josiane, « La tradition musicale en Septimanie. Répertoire et tradition musicale » in VICAIRE 1982, p. 269-282.

MOSTERT 1989 : Mostert Marco, *The Library of Fleury*, Hilversum, Verloren, 1989.

Paléographie musicale I : Le Codex 339 de la Bibliothèque de Saint-Gall (X^e siècle) : Antiphonale missarum sancti Gregorii, Paléographie musicale, I, Solesmes, Abbaye Saint-Pierre, 1889.

*Paléographie musicale II : Le répons-graduel *Justus ut palma*, reproduit en fac-simile d'après plus de deux cents antiphonaires manuscrits du IX^e au XVII^e siècle*, Paléographie musicale, II, préface by Dom André Mocquereau, Solesmes, Abbaye Saint-Pierre, 1891.

Paléographie musicale XIII : Le codex 903 de la Bibliothèque Nationale de Paris (X^e siècle). Graduel de Saint-Yrieix, Paléographie musicale, XIII, Solesmes, Abbaye Saint-Pierre, 1925.

PELLEGRIN 1988 : Pellegrin Élisabeth, *Bibliothèques retrouvées : manuscrits, bibliothèques et bibliophiles du Moyen Âge et de la Renaissance*, Paris, CNRS, 1988.

PHILLIPS 2000 : Phillips Nancy, « Aquitanische Neumen » in *Geschichte der Musiktheorie*, 15 vols., Darmstadt, Wissenschaftliche Buchgesellschaft, 1985-, IV (2000), p. 494-500.

POTHIER 1880 : Pothier Dom Joseph, *Les mélodies grégoriennes d'après la tradition*, Tournai, Desclée, 1880, rev. ed. by Jacques Chailley, Paris, Stock Musique, 1980.

SAULNIER 2010 : Saulnier Daniel, « Les fragments notés de Solesmes », *Études grégoriennes*, XXXVII (2010), p. 189.

STÄBLEIN 1961 : Stäblein Bruno, « Zur Frühgeschichte der Sequenz », *Archiv für Musikwissenschaft*, XVIII (1961), p. 1-33.

STÄBLEIN 1975 : Stäblein Bruno, *Schriftbild der einstimmigen Musik*, Musikgeschichte in Bildern, III/4, Leipzig, VEB Deutscher Verlag, 1975.

SUÑOL 1935 : Suñol Grégoire, *Introduction à la paléographie musicale grégorienne*, Tournai, Desclée, 1935.

VEZIN 1980 : Vezin Jean, « Le point d'interrogation. Un élément de datation et de localisation des manuscrits. L'exemple de Saint-Denis au IX^e siècle », *Scriptorium*, XXXIV (1980), p. 181-196.

VICAIRE 1982 : Vicaire Marie-Humbert ed., *Liturgie et musique (IX^e-XIV^e siècles)*, Les Cahiers de Fanjeaux, 17, Toulouse, Privat, 1982.

WAGNER 1912 : Wagner Peter, *Neumenkunde, Paläographie des liturgischen Gesangs*, 2nd ed., Leipzig, Breitkopf & Hartel, 1912.

ZAPKE 2007 : Zapke Susana ed., *Hispania vetus*, Madrid, Fundación BBVA, 2007.

PART THREE
LATER MEDIEVAL NOTATIONS

Notations in Carthusian liturgical books: preliminary remarks

Contrary to the usual approach towards music notation of the Middle Ages from a geographical point of view (the type of notation, its birth and its expansion in a specific area with several monastic orders), or a stylistic and historical one, notation will be approached here by considering the question from another point of view. Can the unity of a monastic order – a very strong reality for the Carthusians – determine a paleographical homogeneity in terms of notation and calligraphy, independently of geographical or stylistic area?

CARTHUSIAN CONTEXT

It is a common assertion to say that the Carthusians sang their melodies according to a local tradition from the Dauphiné (near Grenoble in French Alps), and that their manuscripts were written in Aquitanian notation whose expansion had reached the Rhone valley into Valence and Grenoble by the turn of the eleventh and twelfth centuries, but the detailed picture is not so clear. In fact, Carthusian monks sang daily the totality of the choral Office, following specific melodies that the founders of the order borrowed from local rituals, to which contemporary Carthusians are still strongly connected, as often presumed. As I demonstrated in my electronic edition of the Premonstratensian Gradual of Bellelay¹ (middle of the twelfth century), the birth and the expansion of a new monastic order, such as those of the Premonstratensians and Carthusians, rests on loose liturgical and musical uses until an *ordo* organizes and stipulates what is part of its identity. Until that moment, however, a great diversity exists and many uses can cohabit together. Accordingly, Carthusian books, which monks took with them when they established their foundations, were not truly Carthusian until it had been corrected, like the Gradual of Bellelay for the Premonstratensians. This fact explains why and how Carthusian books became so complex,² but it is not the only one.

1. CULLIN 2005.

2. On this aspect, see DEVAUX 1995-1.

Another reason lies in the fact that the Carthusians follow an eremitic way of life in which the practice of the chant is not as developed as in other orders. In the silence of the monastic cell, many offices are and were read rather than sung. This aspect explains in part the liturgical specificities of the Carthusian ritual, especially in the establishment of a distinct *Sanctoral*.³ For this reason, Carthusians form a special part of Gregorian chant history as usually described for this time, as belonging to a period of decadence, on the model provided by histories of Latin Christian literature.⁴ Gregorian manuscripts always post-date the composition of their melodies. Despite the fact that melodies transmitted from mouth to ears can be transformed or corrupted, the eleventh century was a great time for Gregorian creativity, as seen in the *Kyriale*. Thus many original Carthusian compositions or specificities were not ‘modernizations’ that need to be replaced by more authentic Gregorian (Solesmian?) ones or by their Aquitanian counterparts.

The silence of the Carthusian cell, its highly symbolic square shape: have these influenced the development of the *nota quadrata*? This is the point of view maintained by John Haines in his recently published paper, ‘Perspectives multiples sur la note carrée’.⁵ As Haines writes, ‘ce sont les mêmes chartreux qui ont copié la *nota quadrata* dans leurs cellules au courant des XII^e et XIII^e siècles. Ils ont adapté le carré des vieux livres liturgiques aquitains, et l’ont ensuite transmis aux nouveaux ordres mendians émergeant à l’aube du XIII^e siècle, les dominicains et les franciscains’. As Haines goes on to state, like the square note, a Carthusian monk’s *cella* was designed as a small square within the larger one of the surrounding monastic walls, a space which had to be domesticated by the meditation of the monk in order for it to become his own *celum*. To argue this point, Haines relies on the texts of the priors Guigues I^{er}⁶ and Guigues II.⁷ Even if the symbolism of the square existed in the Middle Ages in a shape representing the rise of the soul towards the divine perfection during his human life⁸, however, can we admit from an anthropological point of view so strong, and perhaps so Manichean a determinism? It is true that Guigues insists in a chapter of the *Consuetudines* on the art of copying as a necessity for every Carthusian monk.⁹ However, as Haines himself observes, we do not know ‘jusqu’à quel point le *notator* chartreux voyait la note carrée qu’il dessinait comme étant en miniature le carré de sa cellule qui, à son tour, était le microcosme du cloître, et ainsi de suite’. Finally, the reality of handwritten musical Carthusian sources sufficiently contradicts this idyllic vision.

3. DEVAUX 1995-2.

4. See for example, HILEY 1993, p. 613-614.

5. See HAINES 2011. My thanks to John Haines for letting me see this article before its publication.

6. The formula used by Guigues, *cella mea, claustro meo* (*Consuetudines*, 20.4) and pointed out by Haines does not necessarily imply that the first word is a metaphor of the second. Besides, Guigues specifies that on Sunday after None, the monks come together to the cloister and *in hoc spacio incaustum, pergamenum, pennas, cretam, libros, seu legendos seu transcribendos a sacrista poscimus et accipimus*. See GUIGUES I^{er} LE CHARTREUX, *Coutumes de Chartreuse* (Paris, Cerf, 2001). The ‘solitude’ of the monk in his cell must be moderated by the custom of the *recordatio*. On this point, see ANONYMOUS CARTHUSIAN MONK-1 1995.

7. *Habitator cellae es* is a formula often repeated by Guigues II. See GUIGUES II, *Liber de exercitio celae*, PL 153, cols. 880C, 881B, 882C, 884 B & D, cited by Haines. On singing and its relationship with the monk’s cell, see ANONYMOUS CARTHUSIAN MONK-2 1995.

8. LUBAC 1964, seconde partie, vol. 2, p. 41-84, and CARRUTHERS 2002, both cited in HAINES 2011.

9. GUIGUES I^{er}, *Consuetudines*, 28, 2-4. He describes with a lot of precision all the equipment used for the copy.

FIRST SOURCES

Even though the order appeared in the eleventh century, no books from this time have survived. In 1132, a large avalanche completely destroyed the first monastery of the Grande Chartreuse with all its books. Nevertheless, regarding the specific organization of the Carthusian *ordo*, some books written after the avalanche seem to have been copied on old models, so before 1132. To sketch out the history of the main Carthusian manuscripts in a critical way we can organize the main and oldest sources following important events to the Carthusian order: the avalanche of 1132, the apparition of several feasts (Saint Hugh, Trinity, the Solemnity of Marie Magdalene, etc.) as shown in table 1. By checking these events against the origins of each book and by scrupulously studying the liturgical and musical repertory of each, this can be accomplished. X 1, 2, and 3 in table 1 represent books or models lost in the avalanche of 1132 according to Dom Augustin Devaux who finalized this classification and presented it in the critical edition of the Carthusian gradual (see table 1).¹⁰

A brief introduction to each manuscript can help us understand their specific characteristics within the broader context of Carthusian book production.

The oldest source is Parkminster A. 33 as listed in table 1. This is a Carthusian gradual linked to a short treatise of music published in the first volume of Martin Gerbert's well-known collection of medieval writers,¹¹ and an incomplete tonary which is not Carthusian. Except fols. 9-16^v with a later square notation and fols. 17-18 with another later (but less) square notation put on the initial and erased notation, its idiomatic notation on staff lines with a red F-line shows its origin to be near Lyon (fig. 1). In many places, the text was erased, but even this text originated in Lyon. Initially, the Sanctoral was mostly not Carthusian, with Carthusian compositions added as an annex by a second hand. This manuscript can be dated from before 1140, given the prescription included here for the unity of the liturgy by saint Anselm – assuming that prescriptions were adopted more or less immediately. The melodies of A. 33 so closely resemble those of the Portes 44 version that Portes can be considered the original exemplar of the former book.

Séignac 23 is a whole Carthusian gradual. It was written around 1160 – unquestionably after the avalanche given the location of the Dedication mass – for a Provençal Carthusian monastery, known as the Abbey Basile, modelled on the Grande Chartreuse.¹² Except the first folios rewritten in a recent square notation on the erased origin al one, its beautiful Aquitanian notation is written on a three-line staff with a red line for F (fig. 2). Other hands, one of them clearly from the late twelfth century, added B flat and rhythmical strokes. We easily recognize all the neumes typical of the Aquitanian area – *pes*, *clavis*, *scandicus*, *quilisma*, etc. – and the specific left-to-right horizontal *ductus* for ascending neumes and vertical one for descending neumes. The manuscript was in Montrieux library during the seventeenth century. With relation to the twelfth century, we observe in the book an addition by a second hand of stereotyped cadences for many responsories similar to the version of the Marseille, Bibliothèque municipale, ms. 150. Both it and Séignac 23 likely came from the same Provençal house, probably Montrieux.

10. DEVAUX 2005 and 2008.

11. Martin GERBERT, *Scriptores ecclesiastici de musica sacra potissimum* (St Blasien, 1784; Hildesheim, Olms, 1967), 1, p. 251-264.

12. The place of the mass of the dedication is a good criterion. At the origin of the order, before the avalanche of 1132, this office was located between S. Luc and the feast of Nativity. Both manuscripts of Durbon, but also Grenoble 44, Marseille 150 and GC 801¹ have this model and then, should have been copied on a source before the great avalanche of 1132.

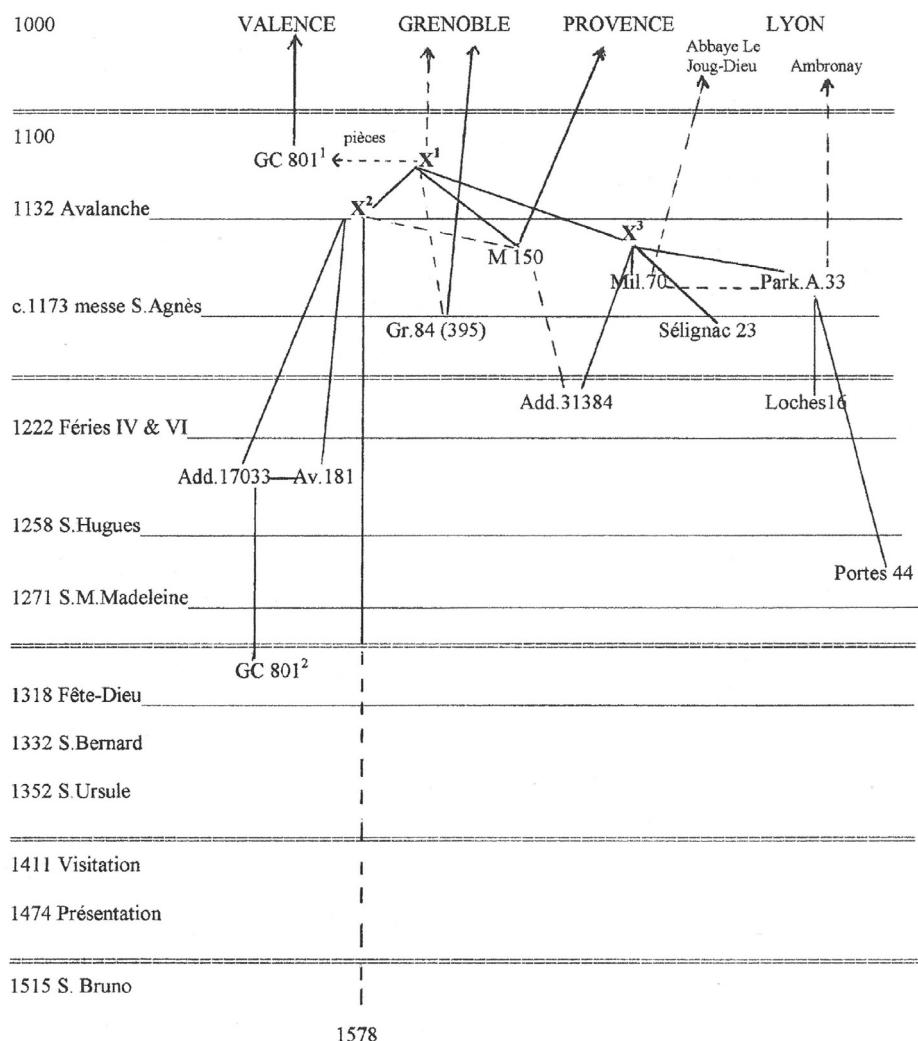
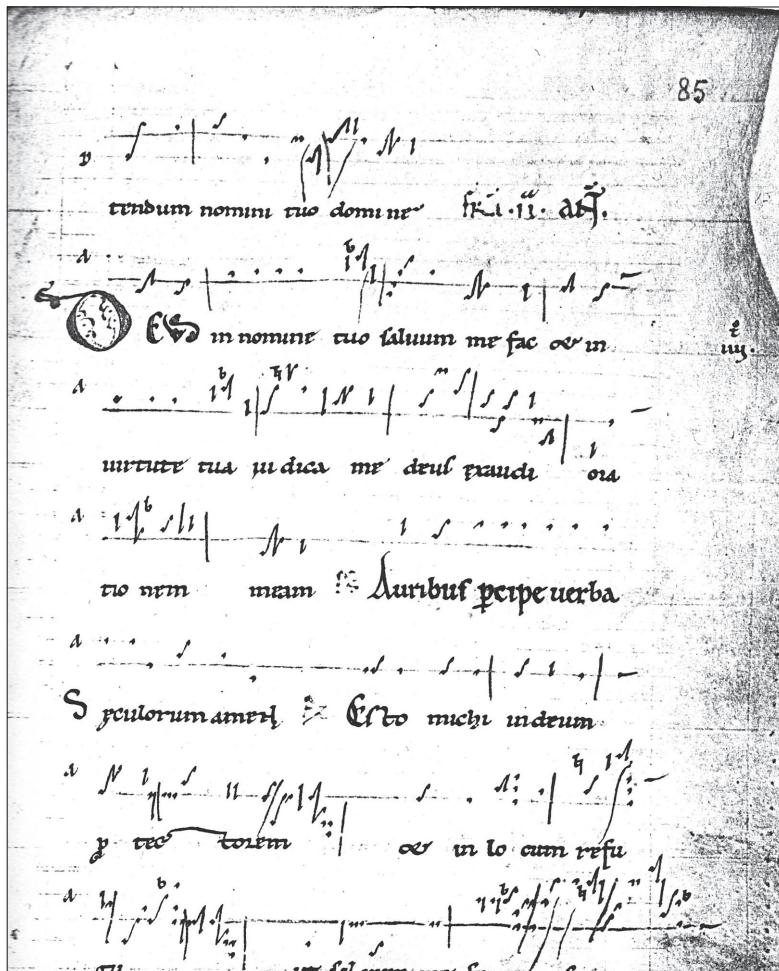


Table 1. Carthusian repertory and sources.

Grenoble 84 (395) is a whole gradual with a purer Aquitanian notation on three staff lines, a red-lead line for F, and the letters A or C for these pitches (fig. 3).¹³ Its Sanctoral gives complete masses for feasts which never were in the Carthusian ordo. Perhaps this book was used by an eremitic institution that combined local and Carthusian traditions in its choice of certain texts. The place of the Dedication mass further suggests that it was inspired by a book from before the avalanche of 1132. The revision of the Sanctoral ends with the feast of S. Ursula introduced in 1352. This probably points to the monastery of Les Écouges as the book's provenance, an eremitic institution linked to the Carthusian order in 1116 and suppressed in 1390.

13. CULLIN 2006, p. 96-97.

Figure 1. Parkminster A.33, fol. 85. Int. *Deus in nomine tuo*.

The last source in Aquitanian notation is Marseille 150, an incomplete gradual from the twelfth century (fig. 4). It is notated in Aquitanian neumes with a red-lead line for F or C and a yellow one for A, with added b flat. Its calligraphy for descending neumes, both compound and 'simple' ones, is especially elegant; witness the *clivis* and *climacus* and the *ductus* of the pen combining dot, lozenge and square forms in a rhythmical intention. Based on the location of the Dedication mass, it appears this manuscript followed an exemplar from the Grande Chartreuse predating 1132.

London, B.L. Add. 31384 is a Carthusian gradual originating in the Abbey of Le Reposoir. This book dates from before the introduction of both the votive mass of the Trinity and the two first *feriae* in 1222, and followed a Grande Chartreuse model posterior to 1132. Its notation on staff lines is rare in the Carthusian tradition, easily identifiable by its mostly rectangular writing. However, a second and later hand wrote over the first one with a clumsy square notation (compare in fig. 5 the end of communion *Fili quid fecisti* and the introit *Omnis terra*).

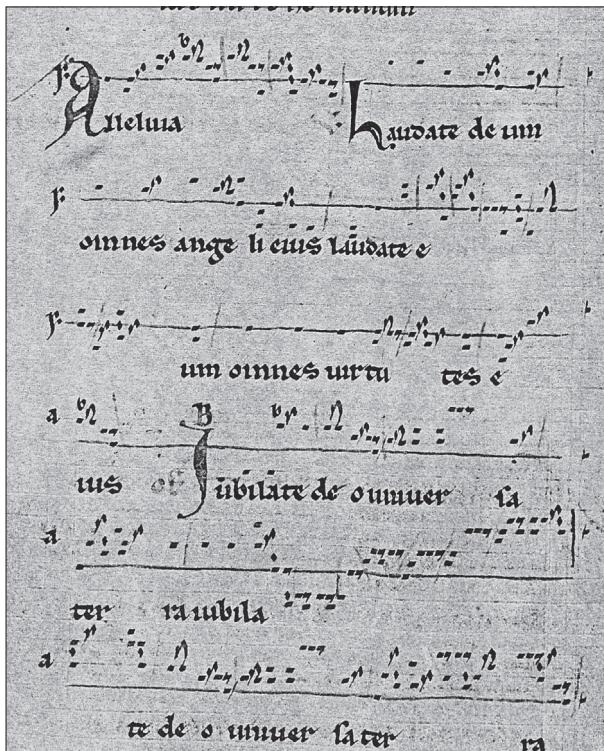


Figure 2. Sélignac 23.
All. *Laudate Deum.*

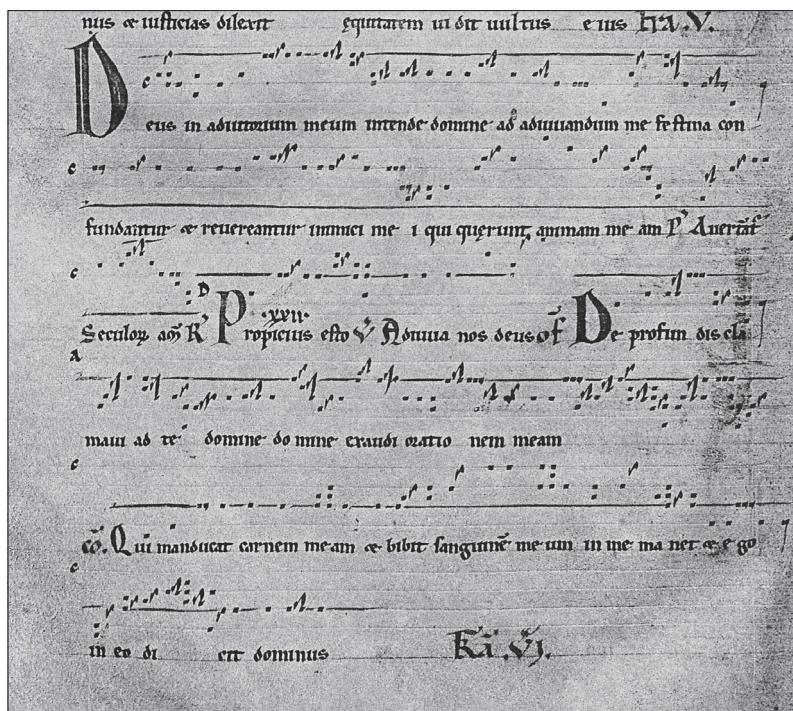


Figure 3. Grenoble 84 (395). Int. *Deus in adjutorium.*

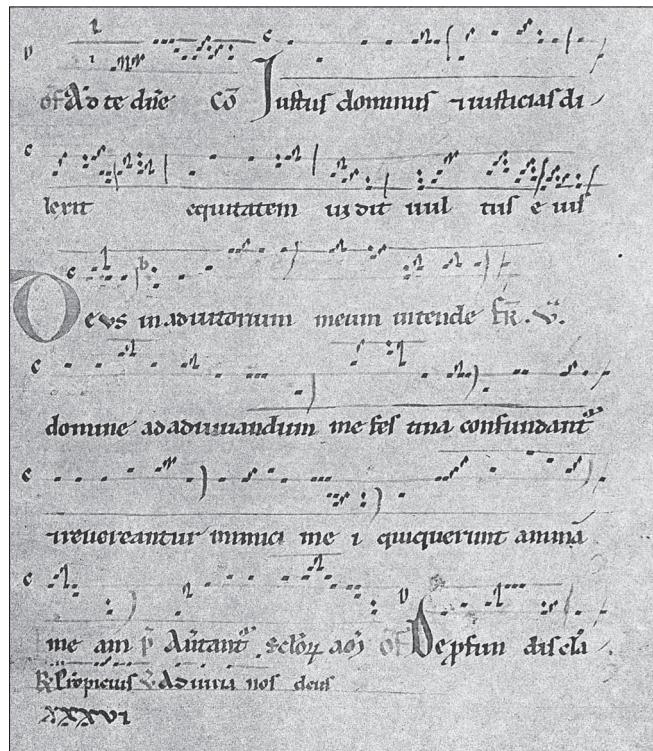


Figure 4. Marseille 150, fol. 24.
Int. *Deus in adiutorium*.

Grande Chartreuse 801 is a complex source.¹⁴ Only one hand wrote the liturgical texts; the list of Alleluias after Pentecost is that of Valence. Two hands wrote the music. Up until the point of the *Triduum* in the book, there is only one notation derived from an Aquitanian typology of staff lines, with a red lead line for F and a yellow one for C. The manuscript preserves certain Aquitanian forms (the *quilisma* and *porrectus*, for example) but elsewhere offers a new style (the *pes*, for example). In the case of descending neumes, we notice that the first square has something new, an upper thin stroke, a feature increasingly common in later Carthusian sources (fig. 6). The second musical hand is later and has a more squared manner. The melodies from the first part of the manuscript are not Carthusian.

With Avignon 181 we come to one of an exceptional pair of manuscripts originating in the same monastery, Durbon, near Gap in the Haute-Provence. This gradual was copied between 1222 (as seen by the introduction of the mass of the Trinity) and 1258 (the introduction of the feast of S. Hugh) on a model itself from before the avalanche of 1132, as the place of the Dedication Mass makes clear. Its notation is made up of little squares on a staff, with a red lead line for F and a yellow one for C. The disposition of the squares clearly reveals either an Aquitanian influence or that of an Aquitanian model which our source revised. The stylization of the *pes* makes this obvious, while the descending neumes still retain the fluidity of their Aquitanian counterparts. Avignon 181 still has the Aquitanian *ductus* and *pes* and *clavis* are in Aquitanian forms.

London, B.L. Add. 17303 is the second of this pair of sources from Durbon, written at the same time as Avignon 181 and also copied from a source from before 1132. The

14. *Ibid.*, p. 98-99.



Figure 5. London B.L. Add. 31384, fol. 24. Int. *Omnis terra*.

notation is made up of little squares on coloured staff lines with F, C or A keys, and reveals its Aquitanian influence in both *ductus* and general appearance of neumatic forms. Here, however, they are very stylized: *pes* and *clivis* have their new forms and descending neumes have exchanged their flexible texture for a succession of little and uniform squares. Fine little vertical strokes written in the original hand indicate separations between melodic groups; later hands added heavier strokes.

With this exceptional pair, we can approach the question of the evolution of the Aquitanian model comparatively taking, for example, the incipit of the gradual *Ego dixi* (fig. 7a-b). Both Durbon sources were conceived at a time when the Aquitanian model of notation was being pared down to a more square and stylized writing. We easily recognize the stylization of the *pes* as two opposite squares (-*go* of *Ego*) with London 17303's marked tendency to be more vertical, as opposed to Avignon 181 which preserves some of the Aquitanian *ductus*. Both notations transform into compound neumes the small, uniform and disconnected Aquitanian squares. Both sources adopt a new *clivis* written in a left-right axis with two opposite squares (-*xi* of *dixi*). Both reveal the same tendency of gradually

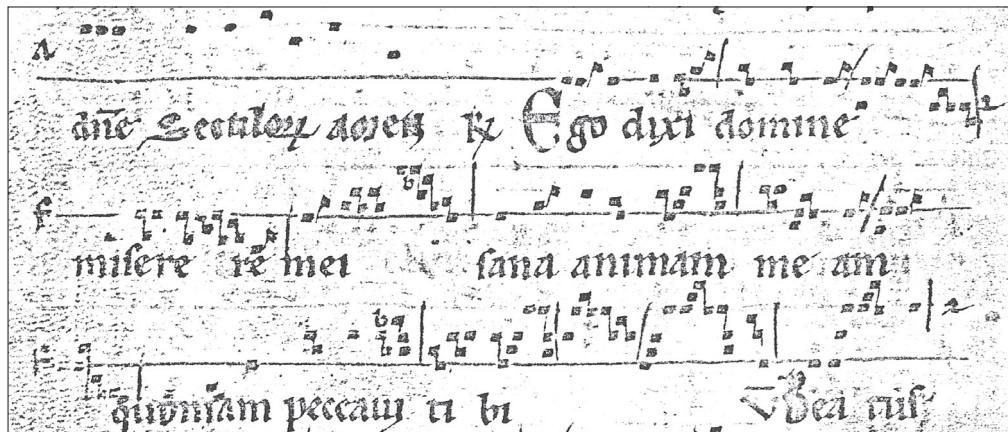
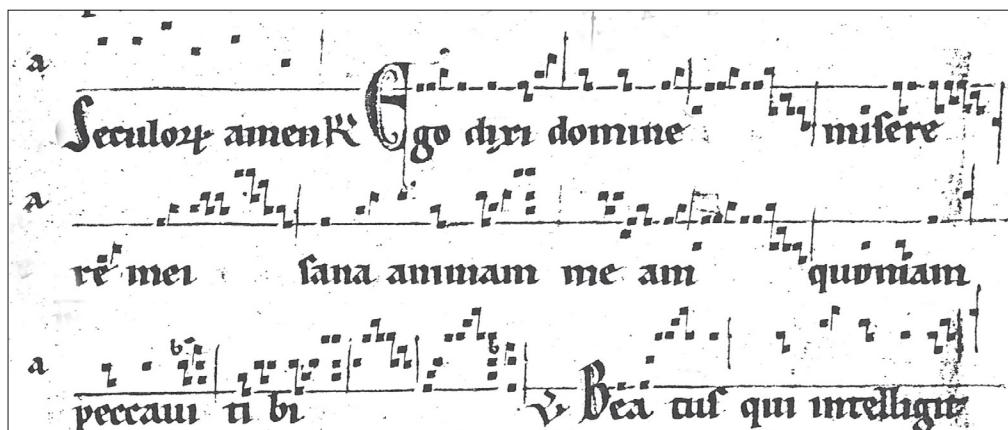
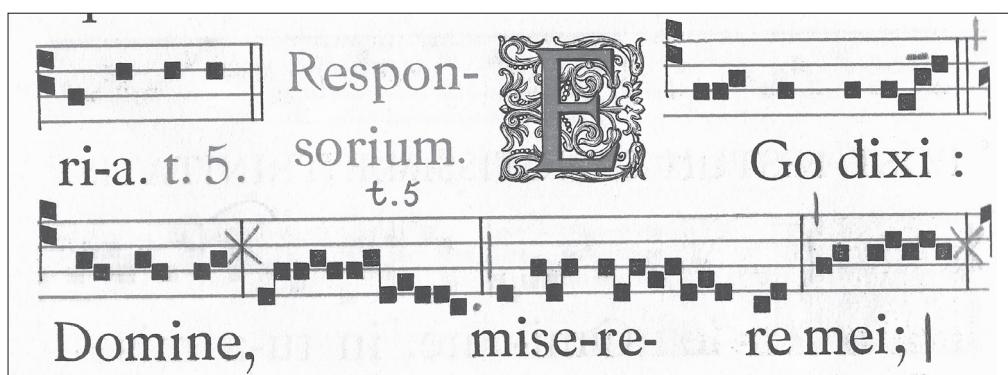
Figure 6. Grande Chartreuse 801, fol. 12. All. *Vidimus stellam*.

uniting disparate elements of a neumatic group into a single and long neume (*tibi* at the end of the gradual, or *-ne* in *Domine* at the beginning) separated by a stroke as it is today in the modern notation used in the Carthusian books (see fig. 8). Between strokes, the melodic movement is clear: combining neumes in larger neumatic groups than usual which would have helped singers retain the movement of the chant; strokes signify a pause and chant in between them must be fluid.

Portes 44 was written in the monastery of Portes between 1258 (the feast of S. Hugh) and 1271 (S. Marie Magdalene), using a Grande Chartreuse source posterior to 1132. Its notation is square on a staff with F and C keys.

Other manuscripts should at least be mentioned here: Milan, Biblioteca Ambrosiana, ms. 70, a gradual from the end of the twelfth century originating in Seillon (near Bourg-en-Bresse), with notation similar to Parkminster A.33¹⁵; Grande Chartreuse, ms. 751, a gradual from the Carthusian house of Moniales de Prébayon (in the Vaucluse), with little

15. A compromise between Aquitanian and Messine neumes, according to DEVAUX 1995, p. 230.

Figure 7a. Avignon 181. Gr. *Ego dixi*.Figure 7b. London B.L. Add. 17303. Gr. *Ego dixi*.Figure 8. Graduale Cartusiense (1897). Gr. *Ego dixi*.

Aquitanian squares; Loches 16 from the monastery of Le Liget (a royal foundation due to King Henry II Plantagenet in 1178, near Loches) with what Dom Devaux states are little 'French' squares; in my opinion, these are simply *notae quadratae* with no specific French influence.¹⁶ Table 1 summarizes the above information, in an attempt to show the age of a source independently from its geographical and notational features.

To finish this brief overview, these Carthusian sources seem to follow more general developments of musical notation in the Middle Ages. Independently of the three manuscripts in Aquitanian notation and of the Carthusian musical addenda in Parkminster A.33, we find at the beginning of the thirteenth century a book from Le Reposoir, London, B.L., ms. Add. 31384; it has a rectangular notation without the finer distinctions that neumatic notation provides especially for melismas. Twenty-five years later, in Durbon, one of the pair of manuscripts mentioned above (London, B.L., ms. Add. 17303), has lost in its notation the legacy of the accents of the Aquitanian notation. Twenty-five years later, Portes 44 and Loches 16 have both eliminated neumatic distinctions with their rendering in square notation the neumes from Lyon found in their exemplar, Parkminster A.33. At the beginning of the fourteenth century, Durbon completes this process of squaring notes, as seen in the second part of Grande Chartreuse 801. Yet Carthusian notation cannot be summarized as a simplistic progression from Aquitanian to square notation¹⁷. If the Aquitanian model remains dominant, it is not the only one; the advent of square notation in Carthusian circles follows roads with more complex meanderings.

INSTABILITY OF NOTATION AS A COMMON TREND

Turning to the notation of the sources themselves, a major problem still remains for any study that attempts to discuss the nature of Carthusian music calligraphy. The fact is that, very often in any one given book, the same composition can be notated in several ways. To appreciate this point, we can take the first carthusian manuscripts and choose, for a clear comparison, compositions sung on a same melody. The second-mode Alleluia *Dies sanctificatus* sung at Christmas, as well as at the Feasts of S. Stephen (Alleluia *Video caelos*), S. John the Evangelist (Alleluia *Hic est discipulus*) and Epiphany (Alleluia *Vidimus*) – to name just these four first versions – provides a clear example.¹⁸

In the primitive Carthusian repertory, this melody is sung nine times in one year. For the ending melisma of the responsory, four different notational versions exist. For a short example, compare Alleluia *Dies sanctificatus* and Alleluia *Vidimus*. The variants occur not only from one codex to the other but even within the same book, as Parkminster A.33 shows in a different way and not on the same neumes than Séalignac 23 (fig. 9 a-b : *pes* and *clivis* at the end of the melisma in Alleluia *Vidimus*¹⁹ instead of *torculus* in Alleluia *Dies sanctificatus* and fig. 10 a-b, inside the ending neume). The award for the greatest melodic

16. *Ibid.*, p. 229. The Liget manuscript has as model the Portes manuscript.

17. See in this book Huglo's chapter, *The earliest developments in square notation: twelfth-century Aquitaine*.

18. CULLIN 2004, p. 62-63: 'la mélodie de cet alleluia est réutilisée le 26 décembre pour saint Étienne, le premier martyr (alleluia *Video caelos apertos*), le 27 décembre pour saint Jean, le disciple bien-aimé du Christ (alleluia *Hic est discipulus*), à l'Épiphanie (alleluia *Vidimus stellam*), le 24 juin pour saint Jean-Baptiste, celui qui annonce le Christ et dont la fête est placée sur l'autre solstice (Alleluia *Tu puer*), puis pour saint Pierre et saint Paul, le 29 juin (alleluia *Tu es Petrus*), pour la conversion de saint Paul (alleluia *Magnus sanctus Paulus*) et, par extension, pour le commun des pasteurs (alleluia *Disposui testamentum*) et le commun des martyrs hors du temps pascal (alleluia *Inveni David*)'.

19. And for Alleluia *Video caelos* and *Hic est discipulus* too.

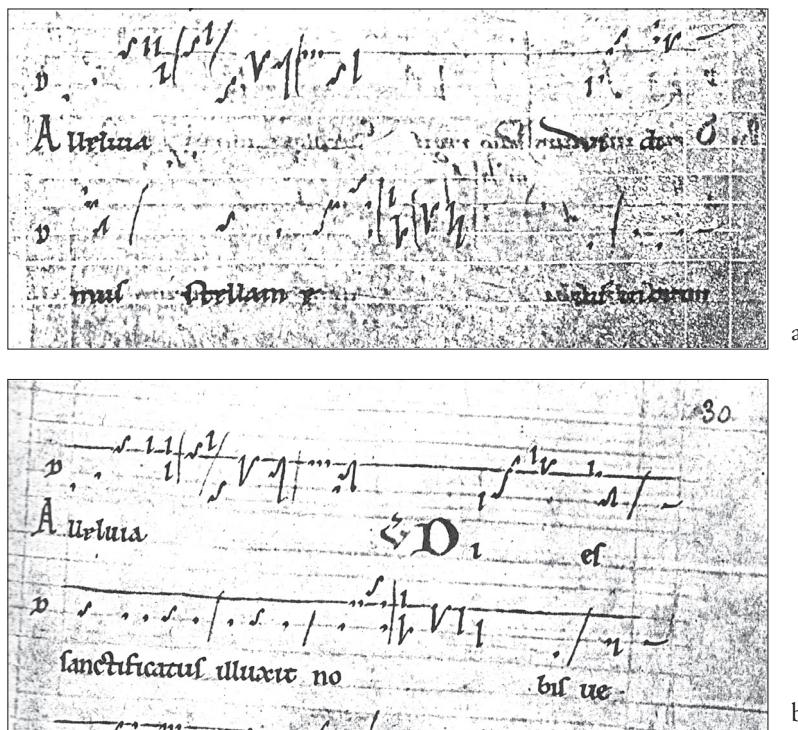


Figure 9. Parkminster A.33. a: fol. 36^v. All. *Vidimus stellam*; b: fol. 30. All. *Dies sanctificatus*.

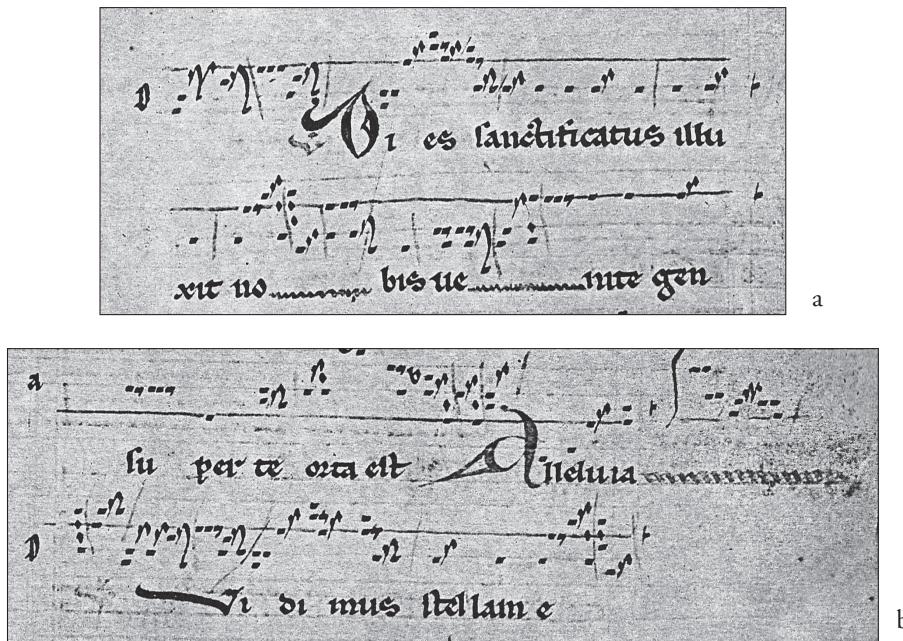
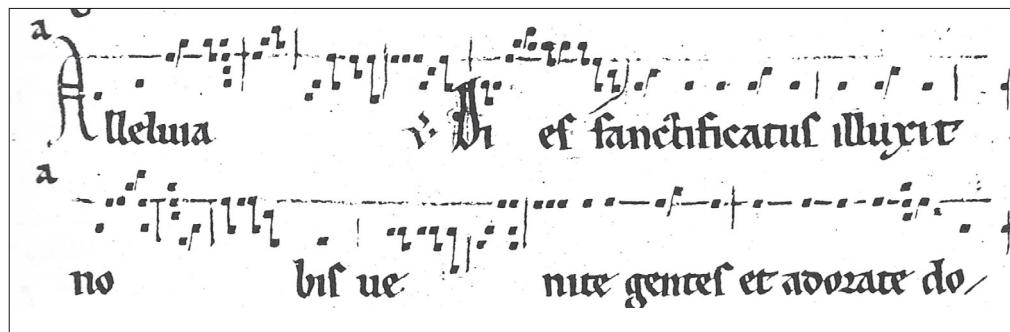
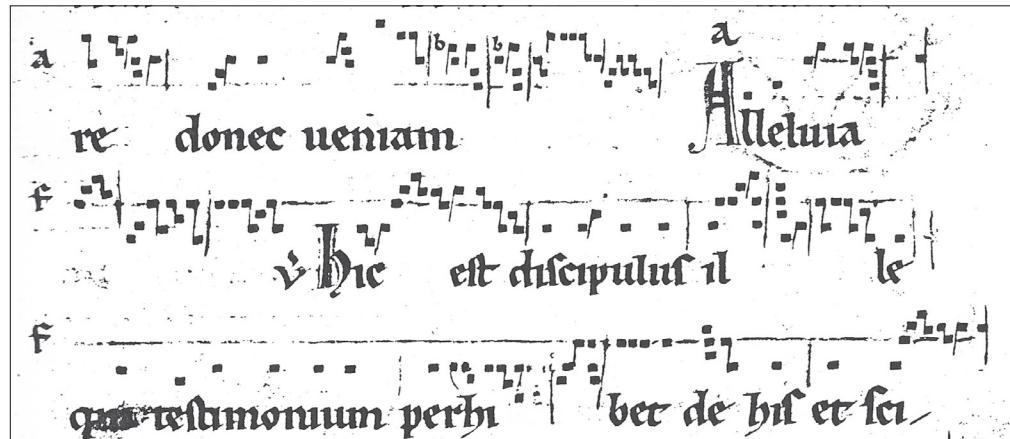
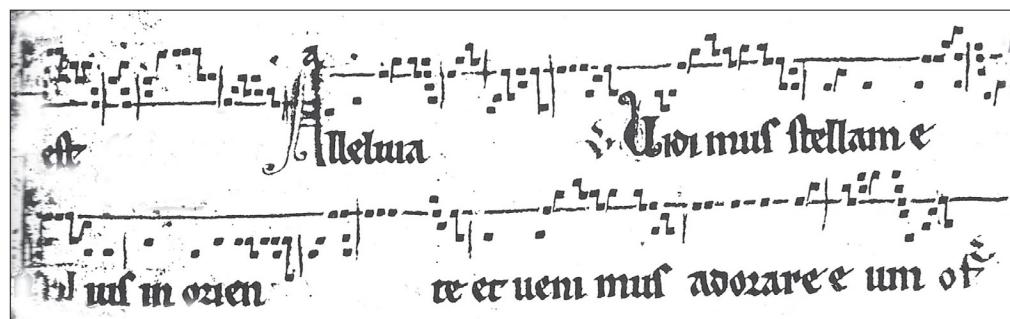


Figure 10. Sélignac 23. a: All. *Dies sanctificatus*; b: All. *Vidimus stellam*.

Figure 11a. London B.L. add. 17303, fol. 19^v. All. *Dies sanctificatus*.Figure 11b. London B.L. add. 17303, fol. 90. All. *Hic est discipulus*.Figure 11c. London B.L. add. 17303, fol. 11. All. *Vidimus stellam*.

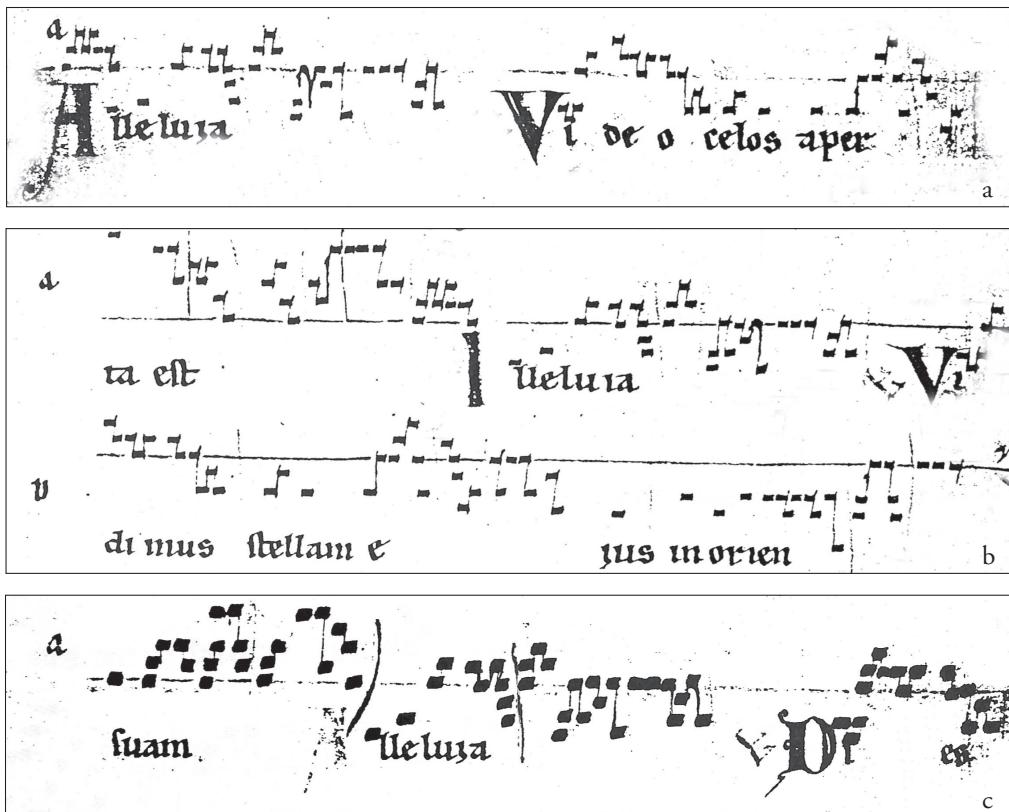


Figure 12. London B.L. add. 31384. a: fol. 18^v. All. *Video caelos*; b: fol. 22^v. All. *Vidimus stellam*; c. fol. 17^v. All. *Dies sanctificatus*.

digression goes to Marseille 150, which has for the five last compositions based on alleluia *Dies sanctificatus* five different notations! Only Grenoble 84 has a very coherent neumatic reading and with, Milan 70 too with only one exception. Continuing this investigation to other sources, more variants can be observed. For example, in the Durbon source, London, B.L., ms. Add. 17303, we see not only different writings for one neumatic group but also different notations for the same sign (fig. 11a-c). In the Le Reposoir source (London, B.L., ms. Add. 31384), the notator clearly hesitated to use unfamiliar differentiations for the same neume (fig. 12a-b -*a* of *Alleluia* before the cadence). The later notator who 'corrected' this passage with square notes apparently chose the second version, that of *Alleluia Vidimus stellam* (fig. 12c). Finally, the source Grande Chartreuse 801 (fig. 6) presents an interesting contrast and a remarkable fact: the same notator made two *clivis* in different notations and, most interestingly, two *scandicus* for the cadence – one in stylised format, the other with an improper old-fashioned Aquitanian *quilisma*, like a doubtful remorse (fig. 13a-b).

Apparently, Carthusian monks were not interested in a very precise and detailed notation. They did not need to notate for themselves whether to sing three *clivis*, or a *orrectus* and a *climacus*, or a *clivis* and a *torculus* followed by another *clivis* in one given passage. Does this mean that nothing can be understood from their notation and that one musical sign is equivalent to another? As I demonstrated in my edition of the Premonstratensian Gradual



Figure 13. Grande Chartreuse 801¹. a: All. *Dies sanctificatus*; b: All. *Vidimus stellam*.

of Bellelay, one composition can be notated in several ways, a fact that can be chalked up to scribal whimsy rather than specific musical intention. Such notational details matter less than the more general idea of melodic mood and movement, captured by the eyes and held in musical memory, a potent memory trained by years of solid aural practice. Rather than in the specific shapes of neumes, the essence of Carthusian musical calligraphy lies in the specific way of indicating the movement of the melody – even though the story of Carthusian notation is that of a kind of stylisation. How this stylisation evolved is a question we need to ask.

FROM NEUMES TO SQUARE

Using notation is one thing, but having a grasp on the exact character of a melody and its calligraphy is quite another. This phenomena can be observed in sources with different notation that reveal another side of Carthusian calligraphy, running contrary to the both a tendency towards stylisation and a preoccupation with melodic movement. In the Gradual of Le Reposoir, London, B.L., ms. Add. 31384 (fig. 5), we can make the same observations as above for the Durbon manuscripts regarding the writing of the *pes* as two opposite ascending squares (l. 5, *-te of omnis terra*), the *clivis* as two opposite descending squares (l. 5, *-ret of adoret*), and neumatic groups linking compound elements between two strokes (l. 6, *altissime*). These tendencies are confirmed in the later revision of the manuscript with a thick square notation (fig. 5, l. 1, for example).

Although this notation is 'classical', like that of later Carthusian sources such as Portes 44, we can still identify its salient elements as seen in the books just mentioned.

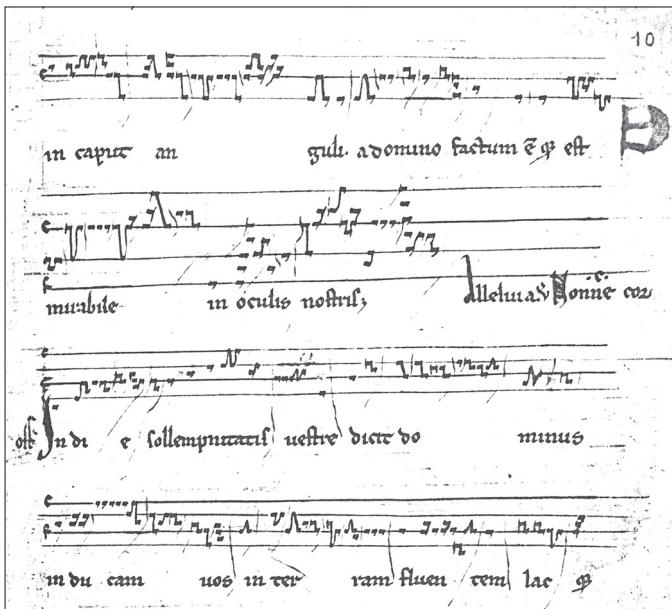


Figure 14. Parkminster A.33, fol. 10.
Off. *In die solemnitatis*.

These elements endure in the modern edition of the Carthusian antiphonary (fig. 8): the same writing of the *pes*, of the *clivis*, of the *orrectus* and of a neumatic articulation in a group made of linked square elements. Still today, Carthusian monks regard this kind of notation as essential to their identity; it profoundly influences the way they sing Gregorian chant. It almost goes without saying that, regarding its general calligraphic style, these signs are increasingly uniform and quadratic in their appearance compared to earlier notations.

As mentioned above, most of the music in Carthusian manuscripts is written in either pure Aquitanian notation or one derived from it. As has been rightly claimed, the original neumatic dots were lengthened in this diastematic writing to form little squares. This point of view implies that such an evolution is a common feature of Aquitanian notation rather than a specific Carthusian attitude and, in fact, it's not obvious.²⁰ Yet Carthusians adopted square notation in remarkable ways. In the first folios of Parkminster A.33 later added to the manuscript in a notation mainly from Lyon, we see some fascinating examples which are obviously the result of sheer pragmatism (fig. 14). Here, the notator uses little squares but with a certain flexibility: l. 2, on *mirabile* we respectively find, a *torculus* made up of three squares, and of two squares with a pressed dot, showing that the notator did not want to lift his hand and stop the neumatic movement to draw a square; we see the same phenomenon in other non-Carthusian sources.²¹ In Parkminster A.33, different signs occur for one neume (fig. 14, for the *clivis*, l. 3 on *dicit*; notice here the little stroke on the left beginning the first *clivis* as it is in Portes 44). Neumatic groups seem to be very pragmatic gatherings of squares, each one with its own stroke as if it was a succession of

20. ZAPKE 2007-2, p. 22-23 and for an example, p. 55. Here, in a fragment, Zapke describes the notation as 'square-Aquitanian' but we didn't remark the *pes* and *clivis* in two opposite squares found in Carthusian books. See also ZAPKE 2007-1, p. 189-243, and examples p. 386-423. In a fragment of a twelfth century missal from Compostela (p. 387), we note a *pes* with a little tendency to be in two opposite parts like it is in Avignon 181, but it remains a neume and not a square written in a neumatic form.

21. *Paléographie musicale II*, pl. 49: a Cistercian manuscript which maintains the dynamic and fluid character of the *pes* and the *orrectus* in a form that is more or less square.

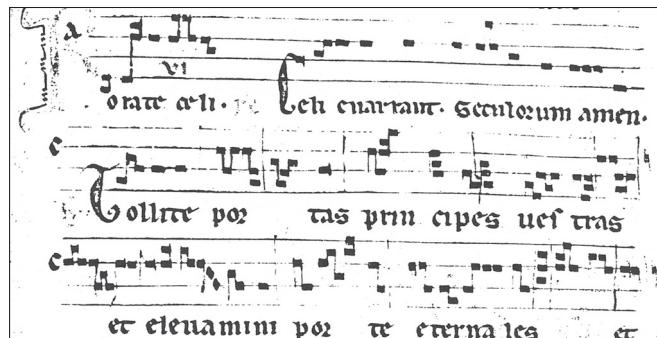


Figure 15. London B.L.
Add. 31384. Gr. *Tollite portas*.

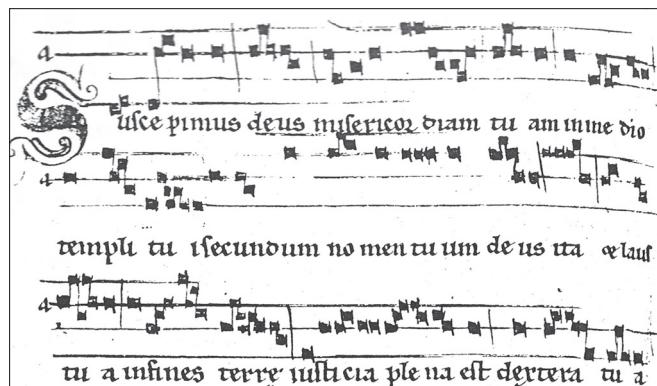


Figure 16. London B.L.
Add. 31384. Int. *Suscepimus*.

puncta, the group beginning with a short and thin left stroke and ending with the same, on right (fig. 14, l. 1 on *est*). Line 2 on *nostris* shows a original and pragmatic form of *porrectus resupinus*: it will be reemployed in later medieval monastic sources.

The gradual of Le Reposoir, London, B.L., ms. Add. 31384 (fig. 15) features a first layer of rectangular notation later corrected to a more square appearance: some remarkable neumes singled out on *-ra* of *rorate* or *-prin* of *principes*; the Carthusian form for the *porrectus* (*-por* of *portas*), for the *pes* and the *clivis* (same place). The little stroke at the right of the square and at the end of a melodic group (*portas*) indicates a light pause. The balance of similar squares in one little neumatic group is clearly a Carthusian idiom. As already mentioned, the modern Carthusian antiphonary preserves the forms and the neumatic organization of the melody that we have gradually seen in medieval books (fig. 8). Later corrections in square notation occur in the Le Reposoir manuscript (fig. 16). The basic neumatic forms of *pes* and *clivis* follow traditional Carthusian writing. The interesting form of the square or *punctum* is one again one bordered by two little strokes. Not a specific character of Carthusian notation, it can be found in contemporary (i.e., thirteenth-century) monastic sources such as the Premonstratensian Gradual of Bellelay that also occasionally reveal the tendency to laboriously update Messine notation to a square form.²² Another example that I recently found of replacing neumatic notation with its square counterpart comes from the Missel of Tours Paris, BnF, lat. 9435.²³ Here, square notes are sometimes written over thin French neumes, also during the first part of the thirteenth century.

22. <<http://bellelay-enc-sorbonne.fr/feuillet99.php>>.

23. On line on <<http://gallica.bnf.fr>>.

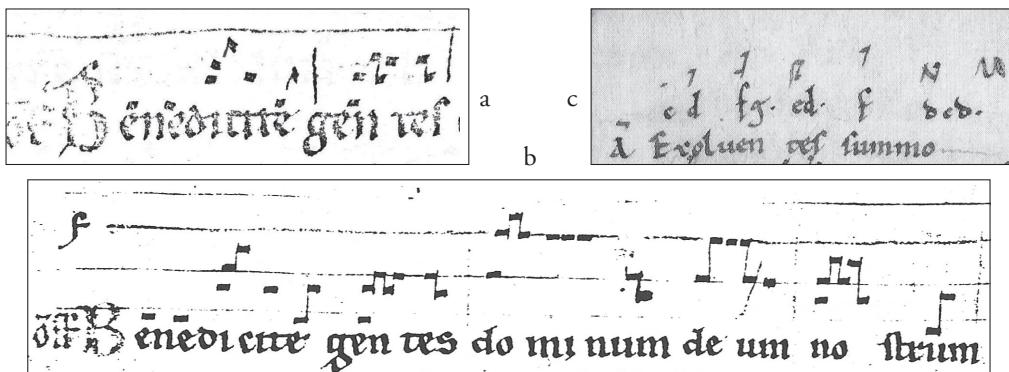


Figure 17. Writing *pes*: a. Avignon 181; b. London B.L. add. 31384; c. Rouen, B.M. 1386.

The specific forms of the Carthusian squares mark the Carthusian area as a special one in the history of square notation. The Carthusian *pes* and all the neumes derived from it are led with a square on left, followed by a stroke and an opposite square on right. This form in three gestures comes from the Aquitanian *pes* (however itself in two gestures) and presents a kind of abstraction of the Aquitanian sign. It is not the same shape as we encounter in other notations like Norman calligraphy (from Rouen²⁴), or like the signs explained by Anonymous IV in the thirteenth century (fig. 17).²⁵

CONCLUSIONS

Carthusian books have notational unity despite their predominantly Aquitanian origin but it is a long process. This is a fairly normal situation: monastic affiliations do not necessarily determine the identity of a notation. Moreover, what does it mean when we call a manuscript Carthusian? Among the oldest sources, Marseille 150 has corrected melodies, GC 801¹ has no Carthusian melodies and in GC 801² many texts do not come from the Carthusian rite. Grenoble 84 has a Sanctoral unrelated to that of the Grande Chartreuse, in the same way that Loches 16 relates to Le Liget. All these sources predate any liturgical unity or statement intended to be that of the Carthusian order. Rather, the actual situation was that the first true Carthusian houses (Portes, Les Écoutes and probably Montreux) were eremitic institutions that adopted Carthusian uses after having been independent. Only Durbon had monks from the Grande Chartreuse from its very beginning. Which is why both manuscripts of Durbon are exceptional, not only for notational reasons, but for historic-liturgical ones as well.

Another reason for the lack of unity is the independence of each source. The first general chapter in 1140 under s. Anselm went after a liturgical unity, which was pursued twenty years later under Dom Basile. These oldest manuscripts (M 150, 70, Add. 33384, Sélignac 23) were still in use until 1222 despite so-called corrections. To take another example, Grenoble 84 remained as a choir book until the suppression of Les Écoutes at the end of the fourteenth century.

24. See Hiley in this volume.

25. HAINES 2006.

In itself, the word 'Carthusian' cannot explain the extremely complex and specific nature of these manuscripts, their liturgical and musical content and, most importantly for us, their specific calligraphy. How amazing, therefore, that, unrelated to the calligraphy of the notation itself, we can observe a given notational trend, at a given time and in different Carthusian books; namely, a trend towards a heavier and more vertical quadratic writing. In other contemporaneous notations, this presents itself as a more angular writing whose forms are still stylized and heavy. As Haines has written, the transition from neumes to squares was more of a slow and inexorable story than a sudden transformation.²⁶ Indeed, square notes do not entirely define Carthusian calligraphy. Its essence lies on the fact that Carthusian notators were scrupulous, preserving original gestures modelled on melodic movement. For this reason, it is false to claim that the *nota quadrata* put an end to a well-moulded and precise neumatic notation. The Grande Chartreuse 801 source is highly revealing in this regard. For in its second part, a Carthusian music copyist at the beginning of the fourteenth century completed the twelfth-century part (GC 801¹) using as his exemplar either London, B.L. Add. 17303, or an equivalent. He wrote in disconnected square notes where basic neumes were joined, as in the notation of the modern Carthusian antiphonary. He also cut out the longest melismas in rhythmical and melodic groups, as it is done in all modern Carthusian books of chant. This distinction is not the sign of a presumed decadence of Gregorian chant. Rather, it represents a specific calligraphy, itself reflecting a highly original way of singing chant. In their oldest books, Carthusians sought to express the melodic mood of their own chant by organizing their notation – be it Aquitanian, square or something else – into articulated groups. The strokes added later stressed a former practice. They were a later written expression of a rhythmical tradition formerly handed down by aural practice and already represented in notation as a specific musical identity. Still today, Carthusians are deeply linked to this identity of which their musical calligraphy is an obvious and clear testimony.

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BIBLIOGRAPHY

ANONYMOUS CARTHUSIAN MONK-1 1995 : Anonymous Carthusian Monk, « La récordation en Chartreuse », *Cantus Planus*, Papers read at the 6th meeting, Eger, Hungary, 1993, Budapest, Hungarian Academy of Sciences – Institute for Musicology, 1995, p. 251-269.

ANONYMOUS CARTHUSIAN MONK-2 1995 : Anonymous Carthusian Monk, « L'office choral et le chant aux premier temps de la Chartreuse: un commentaire du Prologue de Guigues à l'antiphonaire », Papers read at the 6th meeting, Eger, Hungary, 1993, Budapest, Hungarian Academy of Sciences – Institute for Musicology, 1995, p. 271-301.

CARRUTHERS 2002 : Carruthers Mary, *Machina memorialis. Méditation, rhétorique et fabrication des images au Moyen Âge*, Paris, Gallimard, 2002.

CULLIN 2004 : Cullin Olivier, *Laborintus*, Paris, Fayard, 2004.

CULLIN 2005 : Cullin Olivier ed., *Le Graduel de Bellelay*, <http://bellelay.ens.sorbonne.fr>.

CULLIN 2006 : Cullin Olivier, *L'image musique*, Paris, Fayard, 2006.

DEVAUX 1995-1 : Devaux Dom Augustin, « Les Chartreux et les mélodies de leur Graduel », *Cantus Planus*, Papers read at the 6th meeting, Eger, Hungary, 1993, Budapest, Hungarian Academy of Sciences – Institute for Musicology, 1995, p. 225-250.

26. HAINES 2008.

DEVAUX 1995-2 : Devaux Dom Augustin, *Les origines du missel des Chartreux*, Analecta Cartusiana, Salzburg, 1995.

DEVAUX 2005 : Devaux Dom Augustin, *Graduel cartusien*, 5 vols., Analecta Cartusiana, 228, Salzburg, 2005.

DEVAUX 2008 : *Le Graduel cartusien*, introduction by Dom Devaux and complimentary studies by Dom Dysmas de Lassus, Analecta Cartusiana, 228, Salzburg, 2008.

HAINES 2006 : Haines John, « Anonymous IV as an Informant on the Craft of Music Writing », *Journal of Musicology*, XXIII (2006), p. 375-425.

HAINES 2008 : Haines John, « From Point to Square. Graphic Change in Medieval Music Script », *Textual Cultures*, III (2008), p. 30-53.

HAINES 2011 : Haines John, « Perspectives multiples sur la note carrée », *Pecia*, XIV (2011), forthcoming in 2012 at <www.pecia.fr/#/pecia-13-14/3544066>.

HILEY 1993 : *Western Plainchant*, Oxford, Clarendon Press, 1993.

LUBAC 1964 : Lubac Henri de, *Exégèse médiévale : les quatre sens de l'Écriture*, Paris, Cerf, 1964.

Paléographie musicale II : Le répons-graduel 'Justus ut palma', reproduit en fac-similé d'après plus de deux cents antiphonaires manuscrits d'origines diverses du IX^e au XVI^e siècle, Paléographie musicale, II, Solesmes, Abbaye Saint-Pierre, 1891.

ZAPKE 2007-1 : Zapke Susana, *Hispania vetus*, Bilbao, Fundación BBVA, 2007.

ZAPKE 2007-2 : Zapke Susana, *Fragmentos litúrgicos-musicales de la Edad Media en Archivos de Aragón*, Huesca, Instituto de Estudios Altoaragoneses, 2007.

12

Dominican and Franciscan books: similarities and differences between their notations

The Dominicans, or the Order of Friars Preachers, and the Franciscans, or Order of Friars Minor, were founded at almost the same time by two saints whose distinctive spiritualities gave each order a different mission. The Dominicans, founded by Dominic of Guzman (1170-1221), later St. Dominic, adopted the Rule of St. Augustine. They were recognized by Pope Innocent III in 1216 and rapidly spread to Paris (1217), Oxford (1220), Cologne (1222), and soon to the rest of Europe.¹ The first statutes organizing the Order were prepared at the General Chapter in Bologna convened by Dominic in 1220. At this time, the Dominicans sang the office following the usage of the diocese in which their new convents were founded. Thus, great variety in usage resulted from the diffusion of the new Order throughout Europe.²

Dominic's successor, Jordan of Saxony, Master General of the Dominicans from 1221 to 1227, took on the unification of the liturgy and chant of the Order as his first task, towards that end leading a restricted commission of four brothers who had been selected to represent the Dominican provinces of France, England, Lombardy and Teutonia (Germany). After several years of discussion and decision-making, in 1254, the General Chapter of Budapest appointed the fifth Master General, Humbert of Romans, to systematically unify the liturgy and chant in all of the convents.

To achieve this objective, it was necessary to agree on an exemplar, duly corrected, that would serve as the standard reference for all of the copies used by the convents of the Order. Following the Cistercian model,³ this prototype, which included the Constitutions of the Order and the fourteen newly corrected Dominican liturgical books, was commissioned by the General Chapter of Metz in 1251. One copy was to be deposited in Paris and

1. In addition to the publications on the history of the mendicant orders, see HÜSCHEN 1954 with a substantial bibliography, and the much shorter summary in HÜSCHEN 1955 and 1995, as well as BERRY 2001-1.

2. For example, the breviary of Prouilles, kept by the Dominicans of Monte Mario in Rome, which reflects the usage of Toulouse, and the processional of St. Nicolas of Bologna, kept in Copenhagen, of the usage of Central Italy; the latter book has the siglum DK-2 in HUGLO 2004, p. 283.

3. This is Dijon, Bibliothèque municipale, ms. 14 (82), which originated at Cîteaux and was written up between 1185 and 1190. This prototype originally contained the twelve liturgical books prepared and corrected during the reform of 1134, but the three notated books (hymnary, antiphoner, and gradual) had disappeared by 1480, if not earlier.

the other (now lost) in Bologna. Later, a third exemplar was prepared for the convent of St. Stephen in Salamanca. A history of the notation of Dominican manuscripts must begin with these model manuscripts.

Turning to the Franciscans, the history of the notation of their liturgical books parallels that of Dominican liturgical books.⁴ Founded by Francis of Assisi (1182-1226), the Franciscans were recognized by Pope Innocent III in 1223. They first spread throughout Italy, then to Spain and Portugal (1219), France (1219), Germany (1221), Oxford (1224), Cambridge (1240), and finally, to Scandinavian countries (1232-1237). In order to train young religious men in theology and canon law, the first Franciscan leaders established houses of study near early universities: in Bologna (1222), Oxford (1224), Paris (1230), Cambridge (1240), and elsewhere. Nevertheless, the definitive organization of Franciscan liturgy and chant was not accomplished before the mid thirteenth century.⁵

In the first years of their new Order's existence, Franciscans recited the breviary that followed the use of the diocese where their convent was founded. Their oldest choral books and breviaries are notated on the Guidonian staff, with colors, using graphic forms idiomatic to transitional notations from Central Italy and Benevento.⁶

As for the Dominicans, the rapid expansion of their Order in Europe inevitably imposed on leaders the need to take radical measures to unify the chant and liturgy. According to S.J.P. Van Dijk, the rules for transcribing notated Dominican books were promulgated just before 1254.⁷ The original document on this subject is lost, but we possess numerous copies of it in extant Franciscan liturgical books.⁸

Dominican regulations (P in Table 1) on the copying of books for the choir postdate by several years those of Franciscans (M in Table 1).⁹ Due to lost folios, they are absent in the exemplar from the convent of Saint-Jacques in Paris. Thankfully, though, they were preserved in an exemplar used to correct copies, which belonged to the Dominican Master General and had naturally been copied many times over in Dominican antiphoners.¹⁰ The two sets of rules are reproduced in Table 1. They are transcribed in parallel columns to show that P is, by all evidence, a short summary of M, with two additions that are proper to P and adjust it to local circumstances at the time of its composition.

The most striking difference between the two texts is the relative brevity of the Dominican rules (P) compared to those of the Franciscans (M). Several items (1a, 1c, 2 and 3) use

4. See also HAINES 2008, p. 356-365 on Dominican and Franciscan manuscripts.

5. See HÜSCHEN 1955; SCHMIDT 1995; and finally BERRY 2001-2.

6. Assisi, Biblioteca comunale, ms. 694 (anno 1224); Biblioteca Apostolica Vaticana, ms. Vat. lat. 4737 (facsimile in HÜSCHEN 1955, Plate 34); Naples, Biblioteca Nazionale Vittorio Emanuele II, ms. VI-G-38, missal notated between 1230 and 1250; Munich, Franciscan Convent of St. Anna, notated office of St. Francis composed by Julian of Speyer († 1250/55): facsimile in HÜSCHEN 1955, col. 835, Figure 4.

7. VAN DIJK 1963, I, p. 118.

8. The regulations copied in a thirteenth-century gradual from Carmignano were edited in BUGNETTI 1928, p. 409; those from a fifteenth and sixteenth-century manuscript from Alspach were published by GASS 1907, p. 51. For the other sources, see VAN DIJK 1963, I, p. 215-223; II, p. 361-362. To this list, one should add the sixteenth-century Franciscan gradual, Budapest, Országos Széchényi Könyvtár, Cod. lat. 123, mentioned by SZIGETI 1963, p. 147, n. 33, and the partial edition on p. 150-156; Kraków, Convent of St. Andrew, ms. M 205/514 (anno 1340), described in *Musica mediæ aevi* 1965, p. 62, n. 3.

9. HUGLO 2004-2, p. 201 and 205.

10. To the manuscripts cited in VAN DIJK 1963, one should add Basel, Universitätsbibliothek, ms. BVII 31, fol. 309^v; Brussels, Bibliothèque Royale, ms. 3585-86 (cat.n. 668), fol. 4^v; Florence, Biblioteca Medicea-Laurenziana, ms. San Marco 779, fol. 270^v; Solesmes, Bibliothèque de l'Abbaye, Réserve, ms. 68, p. 7, col. B. The textual variants in these manuscripts are insignificant.

| M | P |
|--|---|
| (Statutum Ordinis Minorum) Ista rubrica ponatur in prima pagina gradualium singulorum | (Statutum Ordinis Praedicatorum) |
| 1 a) In primis injungitur fratibus ut de cetero tam in gradualibus quam in antiphonariis nocturnis et aliis faciant notam quadratam et quattuor lineas rubeas sive nigras b) et littera aperte et distinete scribatur, ita quod nota congrue super suam litteram valeant ordinari c) et fiant lineae modo debito distantes, ne nota hinc inde comprimatur ab eis | 1. In antiphonariis et gradualibus et aliis libris cantus fiant notae quadratae cum quattuor lineis debito modo distantibus, ne nota hinc inde comprimatur ab eis. |
| 2 Secundo, quod custodian eandem litteram, eandem notam cum suis legaturis, easdem pausas | 2. Nullus scienter litteram aut notam mutet sed teneantur litterae et notae et virgulae pausarum. |
| quae in exemplaribus correctis cum magna diligentia continentur, nihil scienter addito vel remoto. | 3. Puncta etiam directiva, posita in fine linearum ad inveniendum ubi prima nota sequentis lineae debeat inchoari, diligenter a notatoribus observetur. |
| 3 Tertio, quod quemlibet librum post exemplaria ter ad minus, antequam ligetur vel ponatur in choro | 4. Antequam legatur vel cantetur de cetero in quocumque libro de novo scribendo, prius liber bis ad correcta exemplaria corrigatur. |
| corrigant (corrigatur) | |
| 4 a) Quarto, ut postquam habuerint correcta Gradualia, Ordinaria praedicta et Missalia, faciant Officium secundum quod in eisdem continetur. b) [Quinto quod] Nec faciant huiusmodi opera scribi vel notari a secularibus aliqua ratione, si habere valeant Fratres Ordinis qui haec scribere [poterunt] et notare noverint competenter. Quod si nesciunt addiscant et cogantur ad hoc per suos superiores, quia seculares omnia fere quae scribunt vel notant corrumput. | |

Table 1. Rules for the transcription of notated Dominican and Franciscan liturgical books (originally published in HUGLO 1967, p. 124-125, reproduced in HUGLO 2005, art. XVIII; HUGLO 1992, Appendix, p. 43-44; and HUGLO 2004-2, Tableau III, p. 213-214).

nearly identical terminology because, if one accepts the dating proposed by Van Dijk and Bughetti, the P regulations were written down about two years after the M ones. The text of P thus appears to be an abridged version of M, but with two added prescriptions proper to it: the prohibition of intentional modifications to either the text or melody of chants (number 2), and the required use of the *custos* at the end of the line (number 3). By contrast, P drops a certain number of prescriptions in M, apparently viewed as less important, in order to insist on the points considered essential by its redactors.

The first injunction of M insists that the instructions for transcription appear at the beginning of each gradual, but this practice eventually fell into disuse once Franciscan scribes established a record of good habits. Another prescription imposed a significant change on early Franciscan scribes, who were accustomed to central Italian notations or to the transitional notations on a staff drawn in dry point with two colored lines, one in red for F and the other in yellow for C.¹¹ Henceforth, scribes had to adopt square notation, and it soon spread throughout Lombardy and France, along with the staff traced in red or black (M in Table 1).¹² This staff was carefully traced line by line, and not with a *rastrum*; it would become larger and larger during the course of the fourteenth and fifteenth centuries.

To write the texts of chants, M insists only that the characters should be clear and distinct, and especially, that words be spaced in such a way that the notes would be exactly above the vowels to which they were to be sung. This prescription guarded against a flaw present in certain manuscripts with square notation, where syllables are so firmly packed that at first glance one cannot see which notes correspond to them. At paragraph 2, M insists that scribes maintain the same text and especially the same grouping of neumes and pauses as found in the model. It turns out that the principal quality of Franciscan manuscripts is both the clarity of their texts and the airiness of their allotted space for music notation.¹³

The Dominican regulations take up this prescription briefly, but when it is applied during the copying of the chant books, the result is not as satisfying as that obtained in the notated Franciscan books. The Dominican books have in common with the Franciscan books (M number 5) the adoption of simple vertical bars to separate phrase units, and of double bars for the intonation reserved for the cantor or at the end of the verses of graduals and alleluias to indicate the repetition of the chant by the choir.¹⁴ These bar lines, written to help maintain good ensemble choral performance of chant, may well have been borrowed from Parisian polyphonic notation of the mid thirteenth century; but this question remains open.

The next paragraph of P, which forbids any change to be made to the texts or melody of Dominican chant, is explained by the fact that this chant repertory stands out in sharp contrast to that of the Franciscans and of regular and secular canons, because it partially adopted the Cistercian version of the chant, the product of their chant reform, which

11. On the transitional notation from the region between central Italy and Benevento, see *Paléographie musicale XV*, p. 89 and 96. On the use of this notation in the earliest Franciscan liturgical books, see n. 5 above.

12. Black staves are less common than red staves. Black staves were used in Aosta, Bibliothèque du Séminaire, ms. 9; Naples, Biblioteca Nazionale Vittorio Emanuele II, ms. VI-G-11 (Normandy); Paris, BnF, lat. 13254 (Chelles); Paris, BnF, lat. 14819 (Saint-Victor) and often in manuscripts with Lorraine or Messine notation.

13. See Figure 1 in this essay and the plate reproduced in HUGLO 1982, p. 67-76, and also HAINES 2008, p. 334, Fig. 3.

14. HAINES 2008, p. 327-378. Facsimiles of the manuscript of St. Sabina are in HUGLO 2004-2, plates 9, 10 and 11, and in HAINES 2008, p. 263, Fig. 15.

they attributed to St. Bernard.¹⁵ Thus, this regulation was necessary to keep singers from being tempted to modify the Dominican repertory and unwittingly revert to the common tradition.

The second prescription proper to the Dominicans (number 3) concerns the *custos* at the end of the staff, which guides the singer's eye to find without hesitation the first note of the next line.¹⁶ M does not mention this practical sign, because in central Italy and in the zone of Beneventan notation, the *custos* had already appeared at the end of the tenth century as a witness to the tendency towards diastemacy in the neumatic notation of these regions. In northern France, however, and especially in Paris, the city where the regulations of the Dominicans were composed, the *custos* was totally unknown and therefore required particular mention in the regulations.¹⁷ Only two or three centuries later did the use of the *custos* become the normal practice in France, as elsewhere.

To ensure the accurate transmission of their proper repertoires, M and P insist that any copy of a liturgical book has to be corrected before church use, by collating it with a corrected exemplar at least three times (M), or at least twice (P).¹⁸ The custom of correcting liturgical books before putting them to use is not an innovation of mendicant orders; this precaution is attested in several Cistercian and Benedictine liturgical manuscripts. Rather, the innovation here lies in the recourse to a 'corrected exemplar', as in the system for copying treatises of philosophy or theology by *pecia*, in which an exemplar duly corrected by the Masters of the University was given over to a depository accredited by the Regent to serve as the model for further copies. In one of the two notated Dominican breviaries from the *faubourg Saint-Germain* in Paris, one reads the following marginal note in red ink, *1^apecia de communi sanctorum*.¹⁹ This seems to suggest a division of copying according to book sections – *Temporale*, *Sanctorale*, *Commune sanctorum*, and so on.

Indeed, the principle of returning to the exemplar is the most characteristic innovation of both sets of regulations. The Franciscan prototype is apparently lost, but those of two Dominican convents, Saint-Jacques in Paris and St. Stephen in Salamanca, are still extant today.²⁰ In 1251, another existed at St. Nicolas in Bologna, the location of the headquarters of the Dominican Order before it was transferred to Rome in 1273.²¹ As a consequence of the rapid expansion of the Dominican Order in Europe, the Chapter General in 1256 sought to anticipate the preparation of other exemplars and raised twenty

15. DELALANDE 1949; *Graduel* 1960 in vol. I, the foldout table of the first *sondage* facing p. 204 and the foldout table of the second *sondage* facing p. 220.

16. The origin of this practical term, marked in P with a *periphrasis*, is not known, because it does not appear in the music treatises collated in BERNHARD 1992.

17. This conclusion about the absence of the *custos* in northern French notated manuscripts is based on the examination of some forty French manuscripts (HUGLO 1967, p. 129-130), and conversely, evidence for the use of the *custos* in Italy, on the examination of twenty-five Italian manuscripts (*ibid.*, p. 129). I should add here that when the proser of the Sainte-Chapelle of Paris, Bari, San Nicola, ms. 5 (85) (facsimile in *Prosaire* 1952) was transferred to Bari for the Sainte-Chapelle founded there by Charles II of Anjou, the *custodes* were added by an Italian scribe to all of the Parisian sequences.

18. Notice how the simple difference of one letter between M and P, perhaps an error, changes the meaning dramatically: in M, the book must be corrected *antequam ligetur* ('before being bound'), but in P *antequam legatur vel cantetur* ('before being read or sung from').

19. Paris, Bibliothèque de l'Arsenal, ms. 193-194 (2nd 1/2 13th c.): see LEROQUAIS 1934, II, p. 323; BERNARD 1974, p. 51-52.

20. Of the fourteen books of the exemplar only four chant books survive. See HUGLO 2004, p. 311.

21. According to the *acta* of the General Chapter held in Metz in 1251. See REICHERT *Monumenta* III, p. 60. See HUGLO 1967, p. 132, n. 53.



Figure 1. Rome, Archivio Centrale dello Stato, San Salvatore, ms. 1001, fol. 150^r (reproduced with permission).

livres tournois in each province to cover the cost of these new books.²² Furthermore, so that the Dominican Master General could control every detail of the liturgy transmitted to the convents he visited, an exact copy of the exemplar of Saint-Jacques – called ‘le gros livre’ – was prepared for the Master as a portable book endowed with two straps so that it could be carried like a backpack.²³ Whenever questions or doubts arose during the copying process, it was necessary to have recourse to the exemplar of the convent of Saint-Jacques, for it alone was considered authoritative. If this was not possible, an early copy made from the exemplar, or at least a copy closely derived from it, could be consulted.²⁴

The regulations of the Franciscans forbid the writing or notation of their books in secular workshops, because non-religious artisans ‘spoil almost everything that they write or notate’ in the books confided to them. This measure does not exclude the decoration of missals or of breviaries that could be delivered to them once written and notated in the convents before the final step of binding the books.

In practice, few Franciscan liturgical books in the thirteenth century were provided with luxurious decorations, the use of gold being forbidden on account of the vow of

22. REICHERT *Monumenta*, III, p. 81.

23. HUGLO 2004-2, p. 198.

24. See the references to the sources in HUGLO 1967, p. 133.

poverty.²⁵ Moreover, in the exemplar of the convent of Saint-Jacques and in the portative book of the Master General, the decoration is limited to titles, whose initial letters have blue or red interlacing. But in the office of St. Thomas Aquinas added to the portative book of the Master General soon after his canonization in 1323, the decoration consists of gold initials on blue background, characteristic of its Parisian decorator.

These traditions of adapting books to suit the two mendicant orders' needs continued until the time of the printing press. But the Franciscan tradition, which was adopted by the Roman Curia, would become the tradition of the entire Roman Church. As seen in Figure 1, taken from a missal of the Curia, its ruling in equidistant lines was used both for a notated liturgical text, as well as for a reading without notation. The first *Graduale Romanum* printed in Venice in 1500 was corrected by the Franciscan music theorist Brother Franciscus de Brugis, who describes his work in the preface to the gradual.²⁶ Here, just as in the gradual of the Dominicans, the *custos* at the end of the line and the system of vertical bar lines recommended by the two thirteenth-century sets of regulations, is systematically adopted. These two useful additions to square notation eventually passed into the Vatican Edition of the *Graduale Romanum* (1907) and into the editions of Gregorian chant published by the monks of Solesmes beginning in 1883.

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BIBLIOGRAPHY

BERNARD 1974 : Bernard Madeleine, *Répertoire des manuscrits médiévaux contenant des notations musicales*, III. *Bibliothèques parisiennes Arsenal, Nationale (Musique), Universitaire, École des Beaux-arts et Fonds privés*, Paris, CNRS, 1974.

BERNHARD 1992 : Bernhard Michael ed., *Lexicon musicum latinum medii aevi*, Munich, Bayerische Akademie der Wissenschaften, 1992-.

BERRY 2001-1 : Berry Mary, « Dominican Friars », in *The New Grove Dictionary of Music and Musicians*, VII, 2nd ed., London, Macmillan, 2001, p. 443-444.

BERRY 2001-2 : Berry Mary, « Franciscan Friars », in *The New Grove Dictionary of Music and Musicians*, IX, 2nd ed., London, Macmillan, 2001, p. 175-176.

BOYLE & GY 2004 : Leonard E. Boyle & Pierre-Marie Gy eds., *Aux origines de la liturgie dominicaine, le manuscrit Santa Sabina XIV L 1*, Collection de l'École française de Rome, CCCXXVII. Documents, études et répertoires publiés par l'IRHT, LXVII, Paris, CNRS, 2004.

BUGHETTI 1928 : Bughetti Benvenuto, « Statutum saec. XIII pro scribendis libris choralibus cum notis quadratis ad usum Fratrum Minorum », *Archivum franciscanum historicum*, XXI (1928), p. 406-412.

DELALANDE 1949 : Delalande Dominique, *Vers la version authentique du Graduel grégorien, le Graduel des Prêcheurs*, Paris, Cerf, 1949.

DUGGAN 1992 : Duggan Mary Kay, *Italian Music Incunabula*, Berkeley, University of California Press, 1992.

GASS 1907 : Gass Joseph, *Alte Bücher und Papiere aus dem Clarissenkloster Alspach*, Strasbourg, Le Roux, 1907.

25. This was also because it was prohibited by the Chapter General of Paris in 1239. See GOUSET 2004, p. 44, n. 3.

26. Cited and translated in DUGGAN 1992, p. 134-135.

GOUSET 2004 : Gouset Marie-Thérèse, « La décoration du “Prototype” et des manuscrits liturgiques apparentés », in BOYLE & GY 2004, p. 43-57.

Graduel 1960 : *Le Graduel romain. Édition critique par les moines de Solesmes*, IV. *Le texte neumatique*, Solesmes, Abbaye Saint-Pierre, 1960 (vol. I) et 1962 (vol. II).

HAINES 2008 : Haines John, « The Origins of the Musical Staff », *The Musical Quarterly*, XCI (2008), p. 327-378.

HUGLO 1967 : Huglo Michel, « Règlement de la copie des livres liturgiques notés chez les Mendians et chez les Prêcheurs », in *Festschrift für Bruno Stäblein zum 70. Geburtstag*, Kassel, Bärenreiter, 1967, p. 121-133.

HUGLO 1982 : Huglo Michel, « La notation des manuscrits franciscains », in Pierluigi Petrobelli ed., *Liturgia e musica francescana nel secolo XIII, Annali della facoltà di lettere e filosofia, Università di Perugia, XX-XXI [= n.s. VI-VII]* (1982), p. 67-76.

HUGLO 1992 : Huglo Michel, « Notated Performance Practices in Parisian Chant Manuscripts of the Thirteenth Century », in Thomas F. Kelly ed., *Plainsong in the Age of the Polyphony*, Cambridge, Cambridge University Press, 1992, p. 32-44.

HUGLO 2004 : Huglo Michel, *Les manuscrits du processionnal*, Répertoire International des Sources Musicales B XIV 2, München, Henle, 2004.

HUGLO 2004-2 : Huglo Michel, « Comparaison du “Prototype” du Couvent Saint-Jacques de Paris avec l'exemplaire personnel du maître [general] de l'Ordre des Prêcheurs (Londres, British Library, Add. ms. 23935) », in BOYLE & GY 2004, p. 197-214.

HUGLO 2005 : Huglo Michel, *La théorie de la musique antique et médiévale*, Aldershot, Ashgate, 2005.

HÜSCHEN 1954 : Hüschen Heinrich, « Dominikaner », in *Die Musik in Geschichte und Gegenwart*, III, Kassel, Bärenreiter, 1954, cols. 642-652.

HÜSCHEN 1955 : Hüschen Heinrich, « Franziskaner », in *Die Musik in Geschichte und Gegenwart*, IV, Kassel, Bärenreiter, 1955, cols. 823-841.

HÜSCHEN 1995 : Hüschen Heinrich, « Dominikaner », in *Die Musik in Geschichte und Gegenwart, Sachteil*, III, Kassel, Bärenreiter, 1995, cols. 1335-1340.

LEROQUAIS 1934 : Leroquais Victor, *Les bréviaires manuscrits des bibliothèques publiques de France*, 5 vols., Paris, Protat, 1934.

Musica medii aevi 1965 : *Musica medii aevi*, I, Kraków, Polskie Wyd. Muzyczne, 1965.

Paléographie musicale XV : *Le Codex VI.34 de la Bibliothèque Capitulaire de Bénévent (XI^e-XII^e siècle). Graduel de Bénévent avec prosaire et tropaire*, Paléographie musicale, XV, Solesmes, Abbaye Saint-Pierre, 1937.

Prosaire 1952 : René-Jean Hesbert ed., *Le Prosaire de la Sainte-Chapelle*, Monumenta musicae sacrae, I, Mâcon, Protat, 1952.

REICHERT Monumenta : Reichert Benoit Marie et al. eds., *Monumenta ordinis fratrum praedicatorum historica*, 29 vols., Rome, 1896-2005.

SCHMIDT 1995 : Schmidt Hans, « Franziskaner », in *Die Musik in Geschichte und Gegenwart, Sachteil*, III, Kassel, Bärenreiter, 1995, cols. 820-843.

SZIGETI 1963 : Szigeti Kilianus, « Denkmäler des gregorianischen Gesangs aus dem ungarischen Mittelalter », *Studia musicologica*, IV (1963), p. 129-172.

VAN DIJK 1963 : Van Dijk, Stephen J. P., *Sources of the Modern Roman Liturgy. The Ordinals by Haymo of Favesham and Related Documents*, 2 vols., Studia et documenta franciscana, 1-2, Leiden, Brill, 1963.

13

On *ligatureae* and their properties: medieval music notation as esoteric writing¹

Lapis quem reprobaverunt aedificantes... (Psalm 117:22)

In his novel *The No. 1 Ladies' Detective Agency*, Alexander McCall Smith relates the terrifying discovery by the mechanic J.L.B. Matekoni of a pouch containing human bone and skin. It was an amulet for supernatural protection, and the human remains in it were those of a small child. 'Mr J.L.B. Matekoni had found *muti*', the Zulu word for medicine, explains McCall Smith.² Although an extreme case, this fictitious contemporary African medical amulet nevertheless belongs to a real and universal practice. It may surprise us that medical amulets or *ligatureae*, widely used throughout the Middle Ages in connection with singing, may be connected to a terminology for music notation emerging in the thirteenth century. But a closer investigation in this essay will argue that such a musico-medical connection would not have been extraordinary. Unfortunately modern students of medieval music treatises have too hastily translated such terms as *ligatura* or *proprietas* with their English cognates 'ligature' and 'propriety' without giving enough thought to why medieval musicographers chose these terms in the first place.³ Making matters worse for my topic here – and a fact that may surprise researchers in academic disciplines outside music – is the peculiar musicological aversion to the topic of magic in the Middle Ages, as I have recently argued elsewhere.⁴ Sadly, given the theme of this essay, certain casual readers may be inclined to reject my hypothesis out of hand without having carefully considering its arguments.

Although many of us today regard the supernatural with skepticism or even condescension, medieval writers believed unconditionally in unseen beings and worlds and in the potency of music to connect with these. In describing musical notes, they often

1. This essay grew out of a presentation for the Societas Magica at the International Congress on Medieval Studies on 9 May 2008. I would like to thank session organizer Katelyn Mesler, presider Mildred Bundy, as well as those present at that session for their helpful comments and questions; my thanks also to Claire Fanger of the Societas Magica for her advice and guidance.

2. McCALL SMITH 2002, p. 149.

3. Concerning *proprietas*, see HAINES, 2008-1.

4. HAINES 2010-1.

chose language for related symbolic connotations, since they viewed notation as more than an aid to memorization and performance.⁵ For them, notes were visible symbols of things invisible. The 'material note', as Anonymous IV calls it, served as both witness to and exegesis of a higher, immaterial world.⁶

The note as signifier of the unseen realm can be traced back to the earliest music notation in the West.⁷ The musical note (*nota*) is called *neuma*', writes the tenth-century anonymous author in his treatise known as *Quid est cantus?* (*What is song?*). The symbolism of the word *neuma* or *pneuma*, frequently used by writers from the tenth century onwards, is clear enough. The *pneuma* ('breath') is the divine breath, the word or song mediated by the Holy Spirit as illustrated in the famous image of Saint Gregory receiving the musical Word from the Spirit-dove. Although medieval music writers do not make it explicit (probably because it is too obvious), the basic shape of the neumatic code is a point (*punctus*), the universal symbol along with the circle for the Divine Being, in our case the Christian God.⁸ As for the second basic shape, the staff (*virga*), its symbolism too is universal and self-evident. The staff stands for divine energy, as in a magic wand or the rods of Aaron and Jesse.⁹

It is appropriate that such symbolism in music notation should have been implicit rather than explicit in the medieval period. For most of Antiquity and the Middle Ages, things traditionally kept secret were usually not written down, but reserved for private, person-to-person communication. The late medieval period witnesses the 'rupture of the secret', in the words of Jean-Patrice-Boudet and Julien Véronèse.¹⁰ With a new open attitude towards knowledge, many previously secret things, from ink recipes to medical procedures, appear in writing for the first time. We see this, for example, in Anonymous IV's landmark 'handbook for music scribes' in the thirteenth century, the first known example of its kind. For the first time, Anonymous IV gives a step-by-step explanation of how scribes should write out the different *notae* of music.¹¹ Prior to this time, music notation, like most trades, had been taught largely by oral tradition, perhaps in part because dissemination in writing would have betrayed practitioners' individual secrets. By the early modern period the secrets of nature were no longer viewed as forbidden knowledge but rather as techniques and recipes that rationalized previously inexplicable and undisclosed things, as William Eamon has written.¹²

It is during the thirteenth century, the time of Anonymous IV's writing, that this crucial shift in attitudes towards secret knowledge takes place. Treatises of this century on subjects ranging from botany to astrology typically negotiate traditional requirements for secrecy with a new, growing demand for popularization, as Richard Kieckhefer has put it.¹³ Writers like Roger Bacon and Albert the Great, for example, carefully distinguish between knowledge that can be revealed and knowledge that must remain the property of a happy few.¹⁴ Works

5. See McKITTERICK 2000.

6. HAINES 2006-1, p. 389.

7. The following paragraph draws on HAINES 2008-2, p. 31-32.

8. CHEVALIER & GHEERBRANT 1996, p. 305-306. On *punctus* versus *punctum*, see HAINES 2008-2, p. 31-32 and the sources cited there.

9. CHEVALIER & GHEERBRANT 1996, p. 918-920.

10. BOUDET & VÉRONÈSE 2006, p. 140-146. See also BOUDET 2006.

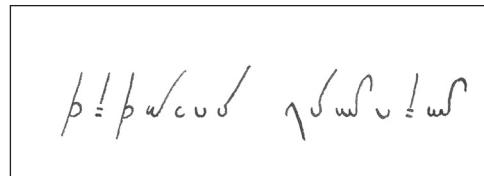
11. HAINES 2006-1, p. 392-396.

12. EAMON 2006, p. 231-234.

13. KIECKHEFER 2003, p. 142.

14. WEILL-PAROT 2006, p. 156-164.

Figure 1.



such as the widely disseminated *Secret of Secrets* openly discuss procedures and techniques about which previously little had been written. The knowledge imparted in the *Secrets of Secrets* exposes the ‘secrets of nature’, revealing how the practitioner can unleash the occult forces of nature. The word ‘occult’ (*occultus*) in this context still has the ancient sense of ‘hidden’, in addition to the modern connotation of ‘magic’.¹⁵

Medieval writing, as all things in nature, also has its secret or occult side. In his ‘Letter on the secret works of art and the nullity of magic’, Roger Bacon (or the Pseudo-Bacon) emphasizes the wisdom of keeping secrets as well as the important role of writing in this. Bacon lists seven legitimate types of secret writing, including codes that use geometrical points and notes (*punctorum et notarum*). The last of Bacon’s seven types of secret writing is the so-called ‘notory art’ which he calls ‘the better way of hiding’ (*maius artificum occultandi*).¹⁶ These various esoteric writings, all thriving in the thirteenth century but dating back to much earlier practices, both reveal things and conceal them at the same time. Their presence betrays the existence of a secret that only a select few can decode.

Bacon does not mention music writing in his seven types of esoteric letters and notes (*notae*), but known instances of medieval music notation as esoteric writing survive. Well over a century ago, students of Visigothic neumes noticed an unusual use of musical notes for the creation of an alphabetic code found in Spanish and Portuguese manuscripts from the tenth to the twelfth century, where given musical notes stand for certain letters. As seen in figure 1, each letter of the expression *Didacus notuit* (‘Didacus wrote [this]’) is rendered as a musical note: a *scandicus* (ascending three-note figure) for I, a two-note *quilisma* for A, and so on. Certain notes resemble Latin alphabet letters, such as those for the D, C, U and S of ‘Didacus’. Such codes of musical notation are suggestive of other unorthodox uses that may not have survived in extant manuscripts.¹⁷

LIGATURAE IN THE MIDDLE AGES

Throughout Antiquity and the Middle Ages, the Latin word *ligatura* means an amulet or charm used for protection or healing.¹⁸ Occasionally *ligatura* denotes a more neutral type of tying, as in bookbinding, but such occurrences are late and infrequent.¹⁹ The word *ligatura* comes from the fact that an amulet is tied or attached in some way to a person’s body. The Ancient Roman writer Pliny, for example, regularly uses the verb *alligare* (‘to

15. KIECKHEFER 2003, p. 12 (*virtutes occultae*) and p. 140-141.

16. BACON 1859, p. 544-545; the translation in DAVIS 1923, p. 40-41 differs from mine here. Unless mentioned otherwise, all Latin translations in this essay are mine. On the notory art, see VÉRONÈSE 2007.

17. On which see BISCHOFF 1954, p. 14-15.

18. Recently on medieval charms and amulets, see OLSAN 2003, BOZOKY 2003 and SKEMER 2006.

19. For example, an anonymous roll from fourteenth-century York records the grant of ‘ten shillings to Robert the bookbinder for the binding (*ligatura*) of one large Gradual’ (*Roberto bukebinder pro ligatura unius magni gradualis... facta decem solidos*). Latin cited in WATTENBACH 1958, p. 393-394.

tie to') in connection with charms. In one description of an amulet in his widely read *Natural History*, Pliny states that 'a traveler who has artemesia and elelisphacus tied on him (*alligatas*) does not, they say, feel any fatigue'.²⁰ Pliny does not specify how the herbs are tied on to the traveler. The practice was so common in Antiquity and the Middle Ages that writers seldom bothered to describe the physical appearance of the charm.

Occasionally, writers provide some details about the physical appearance of *ligaturae*, as in the following passage from Hildegard of Bingen's *Physica*:²¹

If someone is afflicted in their limbs with dropsy, take a good quantity of balm-mint and of grease, along with a little bit of butter; heat together in a frying pan; place it hot on the body part where dropsy rages, having bound together the heated mixture in a satchel as an amulet (*per ligaturam*); and if you do this often, the dropsy will leave that area.

Here, Hildegard describes not only the recipe for mixing the elements to be put in the amulet (balm-mint, grease and butter heated together in a pan), she gives the physical appearance of the *ligatura* as a satchel (*pannus*). Her description matches the appearance of amulets still sold today, as shown in figure 2: a small cloth bag enclosing the ingredients with a string to attach it to or suspend it from a person's body.

Although *ligatura* is the most common medieval word for 'amulet', other medieval expressions do occur. In his recent book on textual amulets in the Middle Ages, Don Skemer reviews the term *ligatura* and related words, most notably *phylacteria*.²² Caesarius of Arles, for example, uses both of these terms in a sermon from the sixth century:²³

Let no one moved to sacrilegious passion during sickness presume to seek out or question magicians, diviners or enchanters (*precantatores*); let no one hang (*adpendat*) on himself or on his relatives amulets or charms (*filacteria aut ligaturas*). For anyone committing this evil loses the sacrament of baptism if they have not undergone penance.

It is not clear from this passage whether Caesarius differentiates 'phylacteries' from 'ligatures', but both appear to have been attached to a human body in some way, whether hung from the neck or simply tied on the afflicted body part.

Skemer brings up another term for 'amulet': *brevis* or *breve*.²⁴ Thirteenth-century Paris bishop William of Auvergne, for example, uses this word to describe magic written on parchment, papyrus or any other material. William writes that 'they call them briefs (*brevia*), whether made of individual pieces of parchment, papyrus, or other material such as metals; all of these are the same idolatry or type of idolatry and detestable relic that is

20. PLINY THE ELDER 1938, vol. 7, p. 374: *Artemisiam et elelisphacum alligatas qui habeat viator negatur lassitudinem sentire*. Pliny uses the verb *alligare* elsewhere, e.g., p. 442 of the same volume. I would like to thank Laura Mitchell for her help in finding this reference.

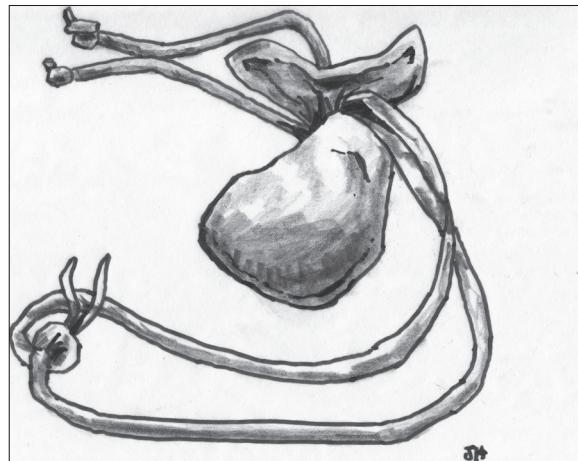
21. HILDEGARD OF BINGEN, *Physica* in *Patrologia latina*, vol. 197, col. 1171C: *Et si quis de gicht in mebris suis fatigatur, accipiat satis destagwurtz, et satis de veteri arvina, et modicum baumoleo, haec simul in sartaine sweysze, et tunc ista super membrum in quo gicht ita furit, ita calida ponat, et panno per ligaturam constringat, et sic saepe faciat, gicht ibi cessabit*. I have profited from the French translation by Pierre Monat: see HILDEGARD OF BINGEN 1988, p. 123. On medieval dropsy, see McVAUGH 2006, p. 156-160.

22. SKEMER 2006, p. 6-19.

23. CAESARIUS OF ARLES 1971, vol. 1, p. 488: *Nullus caraios aut divines aut precantatores sacrlega voluptate de qualibet infirmitate aut adhbeat aut interrogare praesumat. Nullus filacteria aut ligaturas sibi aut suis adpendat: quia, quicumque fecerit hoc malum, si paenitentia non subvenerit, perdit baptismi sacramentum*.

24. SKEMER 2006, p. 13-14.

Figure 2. Modern-day amulet.



contrary to the Christian religion'.²⁵ Still, the most common generic word to describe in the Middle Ages any kind of charm, whether herbal or written, tied or hung around the neck, is the word *ligatura*.

As the above remarks by Caesarius of Arles and William of Auvergne suggest, the Church generally did not look favourably on the popular use of amulets for medical or other purposes.²⁶ I say popular, because healing rituals outside church must have been ubiquitous in medieval society, despite being poorly documented – mainly because the Church regulated writing and the recording of history. In the field of music, the various prejudices of the Church have had devastating consequences for modern historiography, as I have recently argued concerning the modern neglect of major repertoires performed in the Middle Ages.²⁷ Almost as controversial to the Church as amulets were the rituals attending them, and in particular the chants or incantations that often sounded dangerously like plainchant.

The incantation stands out as an example of an entirely neglected musical genre due to the historiographic prejudices just mentioned.²⁸ Some eight centuries before William, Saint Augustine defines an amulet or *ligatura* broadly to include not only objects attached to human beings but also those used in rituals where a person leaps over the object, as well as an incantation (*praecantatio*) performed in rituals using *ligaturae*:²⁹

To this category [of superstitions] belong all the amulets (*ligaturae*) and remedies which the medical profession also condemns, whether these consist of incantations (*praecantationibus*) or certain marks which their exponents call 'characters' or things that are suspended (*suspendendis*) or tied (*illigandis*) or even leapt over (*saltandis*) in some way.

25. SKEMER 2006, p. 60, n. 113: *vocant eas brevia, & in propriis corporiis, & in cartis & in rebus aliis videlicet metallis, quae omnia aut idolatria una sunt, aut idolatriae species, aut ipsius reliquiae detestandae & Christianiae religionis adversae.*

26. On this point, see HAINES 2009, p. 127, and HAINES (forth.) and the comments below.

27. HAINES 2010-2, p. 34-50.

28. HAINES 2009, p.127: 'As to what the music of incantations sounded like, the best way to describe it would be "weird plainchant," on which topic Nicole Oresme provides an exceptional witness'.

29. AUGUSTINE OF HIPPO 1995, p. 90: *Ad hoc genus pertinent omnes etiam ligaturae atque remedia quae medicorum quoque disciplina condemnat, sive in praecantationibus sive in quibusdam notis quos characteres vocant, sive in quibusque rebus suspendendis atque illigandis vel etiam saltandis quodam modo...*

In other words, amulets (*ligaturae*) were closely associated with the incantations that frequently accompanied their use, a point to which I shall return later.

Ligatura, of course, receives its sense from the verb *ligare*, to bind, as we have already seen. The medieval amulet implies not only the tying of elements both together and to the body, but also the binding of forces in the invisible or spiritual realm. An interesting illustration of this comes from Qustā Ibn Lūqā's well-known book from the tenth century alternately titled *Physical Charms* (*De physicis ligaturis*) or *Incantations* (*De incantationibus*). Qustā (Latinized as 'Costa') relates how he helped a nobleman extricate himself from a spell of impotency by prescribing a rubdown with raven's gall and sesame oil. He writes:³⁰

I remember an esteemed nobleman from our country who complained of being bound (*ligatum*) so that he could not have intercourse with women... I read out the passage where it says that one so bound (*ligatus*) should take raven's gall mixed with sesame oil and apply it by smearing it all over the body; and upon hearing that, he had confidence in the words of the book and did it. And as soon as he escaped [the charm] his desire for intercourse increased.

As the editors of Costa's treatise point out, this is one of the earliest statements on the placebo effect in medicine.³¹ A more literalist and thus more typically medieval interpretation of the power of amulets to bind comes from the early modern Swedish historian Olaus Magnus. He tells the story of the medieval magician Gilbert who was bound (*ligatam*) on the island of Weterlacus, as seen in figure 3. Gilbert was literally 'tied' to the island thanks to the counter-magic of two amulets inscribed with Old Germanic runes.³² This legend speaks to the deep ancient and medieval belief in the power of incantations and amulets (*ligaturae*) to bind (*ligare*) both spiritually and physically.

It is important to stress that *ligatura* as a 'ligature' in the modern medical meaning of this word, i.e. a thread stopping the flow of blood, is a post thirteenth-century development.³³ In his recent book, *The Rational Surgery of the Middle Ages*, Michael McVaugh has demonstrated the emergence of a rational approach to medicine at the turn of the thirteenth and fourteenth centuries, influenced by newly available Arabic medical works. The new rational medical tradition appears fully formed by 1363, the date of Guy de Chauliac's *Chirurgia*, a major treatise on medicine and the culmination of over a century of medical treatises by writers from Ruggiero Frugardi in the late twelfth century to Henri de Mondeville in the early 1300s.³⁴

Guy de Chauliac's *Chirurgia* presents us with a passage that bridges the typically medieval and early modern conceptions of medical *ligaturae*:³⁵

30. WILCOX & RIDDLE 1995, p. 34: *Memini enim quemdam nostre terre nobilissimum se esse ligatum murmurasse ne cum mulieribus coiret... legensque locum ubi dixit ligatus taliter fel corvinum accipiat mistum cum sisameleon quo ungens totum corpus adiuvatur, ipse autem audiens, confisus est libri verbis sicque fecit; cito quoque cum evaserit, augmentata est concupiscentia coeundi.* My translation here differs slightly from the editors on p. 42.

31. WILCOX & RIDDLE 1995, p. 2.

32. Illustration with Latin text in OLAUS MAGNUS 1972, p. 124; cited in SKEMER 2006, p. 44, n. 71.

33. On the historical development of the terminology of medical ligatures, see FANDRE 1944, p. 12-39.

34. MCVAUGH 2006, p. 13-52, p. 89-134 and 184.

35. GUY DE CHAULIAC 1997, vol. 1, p. 143, line 18 – 144, line 7: *Triplex est ligatura... Ligatura incarnativa competit vulneribus recentibus et fracturis, et fit cum binda a duobus capitibus plicata usque ad medium, incipiendo ab opposite parte loci soluti... Ligatura expressive competit ulceribus et cavernis ad expellendum materiam de fundo et ad defendendum quod altera material non veniat in loco... Ligatura retinens medicamina competit membris in quibus non potest fieri stricture neque alia ligature, ut in collo et ventre, et in omnibus apostematibus et dispositionibus dolorosis. Et fit cum binda unius capitum aut multorum capitum sive brachiorum, incipendo super locum lesum, ligando in oposito eiusdem.*



Figure 3. Olaus Magnus, *History of the Northern Peoples* (1555):
Gilbert the magician bound on the island of Weterlacus

There are three types of ligatures... A topical ligature (*ligatura incarnativa*) is suited to recent wounds and fractures, and is made from a band folded (*plicata*) from either end down to the middle... An occlusive ligature (*ligatura expressiva*) is suited to sores and deep wounds for keeping substances out from the bottom and for preventing other substances from entering the place... A 'ligature' for holding medication (*ligatura retinens medicamina*) is suitable for members on which no other constriction or other ligature can be placed, such as the neck or stomach, and in all ulcers and painful conditions. And it is made with a single-headed band or with multiple heads or arms, starting at the point of injury and tied up on its opposite side.

Here Guy distinguishes between three types of *ligaturae*. He spends two long paragraphs (not given in full here) detailing the first two types which he has earlier called 'good and decent ligatures'; these are ligatures in the modern sense. He then briefly sketches out in two short sentences a more dubious *ligatura* for holding medicine: this is Guy's reluctant nod to the traditional medieval amulet still very much in use in his day. Guy's ambivalence about the new and old *ligaturae* would endure long after him as late medieval and early modern medicine continued to waver between alchemy and cosmetics, as McVaugh has put it.³⁶

Much of the surviving evidence for the use of medieval charms comes to us in the form of official condemnations, some of which I have already cited; they are many, and attest to the popularity of the *ligatura* and its music, the incantation. Another typical instance comes from a tenth-century penitential:³⁷

If anyone either has made amulets with herbs (*ligaturas per herbas*) or has incanted (*incantaverit*) in some evil way and cast a spell on a Christian (*super Christianum ligaverit*), understand that that person has lost their Christian faith and must repent for three years on bread and water.

36. McVAUGH 2006, p. 181-228.

37. SCHMITZ 1883, p. 312: *Si quis ligaturas fecerit per herbas vel quolibet ingenio malo incantaverit et super Xtianum ligaverit, sciat eum fidem Xti amisisse, III annos peniteat in pane et aqua.* Partially cited with other interesting references in HARMENING 1979, p. 243, n. 172.

The final part of this passage about casting a spell on a Christian implies that amulets and incantations were not always kept out of the church. In his book *Binding Words*, Don Skemer has argued that the frequent condemnations of amulets and charms only go to show that the use of amulets persisted throughout the Middle Ages. Ecclesiastical condemnations of amulets suggest that they existed 'throughout the Middle Ages despite sporadic efforts to curtail their use'.³⁸ Moreover, as Skemer emphasizes, amulets and the practices associated with them often fused with Christian rituals: 'clerical literacy virtually guaranteed the church... a central role in the history of... amulets'.³⁹ Here again, we see how the negative prejudices of the medieval Church resulted in its downplaying a major cultural phenomenon which modern researchers subsequently have had to tease out of the historical record.

I suggested a little earlier that the incantations accompanying the use of *ligaturae* at times resembled liturgical chant. Incantations frequently made use of liturgical formulas such as the Lord's Prayer or the Kyrie, as attested in medieval penitentials and other sources.⁴⁰ In his confessional from around 1215, Thomas of Chobham writes: 'neither are observances or incantations using herbs gathered for medicinal purposes allowed unless using the canon of the mass or the Lord's Prayer, and unless they honor God the creator and lord of all things'.⁴¹ All throughout the Middle Ages, standard liturgical chants were used in medical and other rituals officially condemned by the Church. From the early medieval period, for example, comes the following passage from Saint Augustine's *Commentary on the Gospel of John*:⁴²

I go so far as to say, my brothers, that those who seduce through charms (*ligaturas*), through incantations (*praecantationes*), and through contrivances of the enemy, mix the name of Christ with their incantations.

Eight centuries later, the same basic idea appears in Thomas Aquinas' *Summa Theologica*:⁴³

It is lawful for one to suspend (*suspendere*) the relics of the saints from one's neck, or to wear (*portare*) them in any way for self-protection... Beware... lest besides the sacred words are held something false... and if hope is placed in the manner of writing or binding (*ligandi*), or in any other falseness of the kind having no connection with reverence for God; because this would be pronounced superstitious.

Both Augustine and Thomas, at either end of the Middle Ages, attest to the popularity with medieval Christians of amulets and their accompanying incantations. Augustine admits that *ligaturae* 'mix the name of Christ with their incantations', while Thomas speaks of holy relics being used as amulets, declaring the latter lawful.

38. SKEMER 2006, p. 72.

39. SKEMER 2006, p. 72-73.

40. See, for example, MCNEILL & GAMER 1938, p. 43 and 294.

41. BROOMFIELD 1968, p. 477: *Nec in collectionibus herbarum que medicinales sunt aliquas observationes liceat attendere nisi tantum cum symbolo divino aut oratione dominica, ut tantum Deus creator omnium et dominus honoretur.*

42. AUGUSTINE OF HIPPO, *In Joannis Evangelium*, edited in *Patrologia latina*, vol. 35, col. 1440: *Usque adeo, fratres mei, ut illi ipsi qui seducunt per ligaturas, per praecantationes, per machinamenta inimici, miscreant praecantationibus suis nomen Christi.*

43. NICOLAS 1853, p. 353-354: *Sed reliquias sanctorum licet homini collo suspendere, vel qualitercumque portare ad suam protectionem... Deinde cavendum est secundo, ne cum verbis sacris contineantur aliqua vana... aut si spes habeatur in modo scribendi aut ligandi, aut in quacumque hujusmodi vanitate, quae ad divinam reverentiam non pertineat; quia hoc judicaretur superstitionem.* This is from part II/2, question 96, article 4.3-4 of the *Summa*.

What did medieval amulets or *ligaturae* look like? Medieval writers seldom give detailed descriptions of them. Amulets were so common and mundane that one did not need to describe them; besides, they were officially condemned by the Church. It seems, however, that most amulets were pouches made of animal skin with an attached cord of some sort, as seen in figure 2. In another passage from the already cited *Natural History*, Pliny the Elder gives both the material of the amulet (deer skin) as well as its contents (worms from the head of a spider):⁴⁴

There is also a third kind of venomous spider, a hairy spider with an enormous head. When this is cut open, there are said to be found inside two little worms, which, when bound up in deer skin (*adalligatique... pelle cervina*) and worn by women before sunrise, act as a contraceptive... They retain this property (*vis*) for a year.

Other writers specify whether the amulet is suspended (usually from the neck) or tied, and if so, to which part of the body. Hildegard of Bingen, for example, in the passage cited earlier in this essay, recommends attaching the amulet to whatever part of the body is afflicted. Some name the specific body part. In a twelfth-century lapidary by the Pseudo-Orpheus, we find the following injunction: 'Smoky topaz... cures dropsy when tied (*circumligatus*) to the left arm'.⁴⁵ Guy de Chauliac in the fourteenth century is explicit about the shape of the standard *ligatura*. As cited above, the amulet 'is made with a single-headed band or with multiple heads or arms, starting at the point of injury and tied up on its opposite side'.

In his book on textual amulets mentioned earlier, Don Skemer has done a great service to research on the physical appearance of medieval amulets, by describing in detail the folding and rolling patterns of some surviving textual amulets.⁴⁶ Typically late medieval specimens, these parchment pieces bear texts and images. One example Skemer describes is an amulet from thirteenth-century Canterbury.⁴⁷ This rectangular parchment sheet was folded seven times vertically and three times horizontally. To fold (Lat. *plicare*) a textual amulet was often indispensable to making it. Skemer explains that folding patterns would have had symbolic significance, although no literary evidence for this survives except for the amulets themselves. The numerology of the folds of the Canterbury amulet is straightforward: seven and three, both sacred numbers, as Skemer states.⁴⁸ So the act of folding, *plicatura* or simply *plica*, was symbolically significant in the production of text *ligaturae*.

The Canterbury amulet is preserved as an unfolded piece of parchment; figure 4 shows my reconstructed paper version of the Canterbury amulet following Skemer's description of it. 'When fully folded', he writes, 'it was a long rectangle measuring approximately 12.8 x 5.3 cm'.⁴⁹ It is important to remember that the state of the few surviving medieval textual amulets as unfolded pieces of parchment carefully preserved in libraries is misleading. In the bustle of their former life, these prestigious pieces of parchment were repeatedly folded and unfolded.

44. PLINY THE ELDER 1938, vol. 8, p. 238: *Tertium genus est eodem nomine araneus lanuginosus, grandissimo capite, quo dissecto inveniri intus dicuntur vermiculi duo adalligatique mulieribus pelle cervina ante solis ortum praestare, ne concipiatur, ut Caecilius in commentariis reliquit. Vis ea annua est, quam solam ex omni atocio dixisse fas sit, quoniam aliquarum fecunditas plena liberis tali venia indiget.*

45. ABEL 1971, p. 181: *lapis capnites... curat hydropicos circumligatus sinistro brachio*; here again, my thanks to Laura Mitchell for looking up this reference.

46. SKEMER 2006, p. 138-144.

47. SKEMER 2006, p. 199-214, with photographic reproduction on p. 200-201.

48. *Ibid.*

49. *Ibid.*

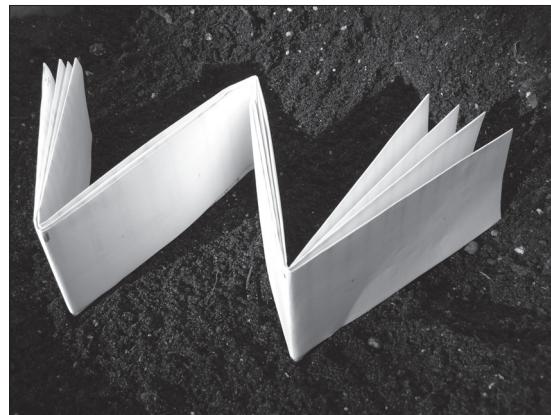


Figure 4. Reconstructed textual amulet from thirteenth-century Canterbury by the author.

Before moving to the *ligatureae* of music notation, I would like to consider one more important feature of medieval amulets: the notion of property. As commonly understood throughout the Middle Ages, the power of a *ligatura* to protect, bind or heal originates in its property or *proprietas*. One of the clearest expositions of this idea comes at the end of Qustā Ibn Lūqā's treatise on amulets cited earlier:⁵⁰

Their operation is from their property (*ex proprietate*) and not from reasons through which we can understand them... In some cases certain substances have a property (*proprietatem*) incomprehensible to reason because of its subtlety and not furnished to the senses because of its profundity.

Qustā Ibn Lūqā's statement is foundational to the medieval understanding of *proprietas* as related to amulets. The property, or properties, of these amulets were what made them work; without *proprietas*, a *ligatura* could have no effect. What is more, reason could not apprehend *proprietas*. It is 'incomprehensible to reason because of its subtlety', in Qustā Ibn Lūqā's words.

As Michael McVaugh has pointed out in an important recent essay, in the fourteenth century there emerges an academic debate surrounding *proprietas* in medical procedures. At the heart of this debate lies the question of how one gets to know the various properties of substances. As Arnald of Villanova puts it in his commentary on Hippocrates' *Vita brevis*, 'since the knowledge of properties (*noticia proprietatum*) cannot be gained by reason, but only through experience or revelation... it is possible that commoners will gain knowledge of property (*proprietatis noticia*) before others'.⁵¹ This passage sums up well the paradox of *proprietas* in scholastic terms. Since unobtainable by reason, the properties of substances has to be won through either experience or revelation. Thus commoners who are experienced with the things of nature are better disposed to the understanding of *proprietas* than those who are learned by merely rational means.

The property or properties of an amulet vary depending on several factors, one of these being the element or elements constituting the amulet. Some stones, for example, have specific properties that will produce certain results. In his lapidary from the twelfth

50. WILCOX & RIDDLE 1995, p. 39: *Quorum enim actio ex proprietate est non rationibus unde sic comprehendendi potest... Aliquando ergo quaedam substantiae habent proprietatem ratione incomprehensibilem propter sui subtilitatem et sensibus non subministratam propter altitudinem sui magnam.*

51. Translated with Latin original in MCVAUGH 2003, p. 335, as well as MCVAUGH 2006, p. 64.

century, Arnold of Saxony says that the innate 'property (*proprietas*) of pyrite stone is such that when it is pressed and flung about', the body part that presses this stone and flings it about will experience a burning sensation.⁵² Other stones are praised for their great *proprietas*. In another twelfth-century lapidary, the Pseudo-Aristotle sings the praises of the so-called Jewish stone (*lapide iudaico*). 'Its strength or property (*virtus vel proprietas*) is such that if someone suffering from a defective stone in the kidneys should drink a sixth of a shekel's worth of it ground up, it shatters the stone, breaks it into fine sand, makes it pass through the urine and it is released'.⁵³ Another factor that affects the *proprietas* of a substance is the kind of ritual performed in connection with the *ligatura*, since the ritual bestows on the object its strength. We have seen this earlier in the passage by Hildegard of Bingen; only when balm-mint, grease and butter are mixed together and bound in a certain way will the amulet become endowed with a special property. The property of amulets often has an expiration date, as seen in the earlier passage by Pliny the Elder, who concludes his description of the deer skin amulet by saying that its property or strength can last up to a year.

MUSICAL LIGATURAE AND THEIR PROPERTIES

All of the foregoing may seem irrelevant to medieval music, but it is not. In their description of the new mensural music (*musica mensurata*), thirteenth-century writers were profoundly influenced by the trends of their day. Nearly all learned music commentary – or any learned writing, for that matter – of the thirteenth century was shaped in some way by the New Aristotle, i.e. the works of Aristotle on natural science newly introduced in university curricula, as Jeremy Yudkin first pointed out.⁵⁴ Just how this influence played out varied with each writer.⁵⁵ For example, the writer known as Anonymous IV assimilated basic, undergraduate-level Aristotelian concepts from general works like the *Physics*, whereas the more systematic Johannes de Grocheio fully integrated the zoological work of Aristotle as a template for what he called 'a new division of music'.⁵⁶

Musical commentators had more to choose from than just Aristotle, however, when it came to new writings of the thirteenth century. The case of Anonymous IV is instructive, for he had clearly drawn on a range of new or newly revived authors, from the Greek mathematician Euclid to the astronomer Johannes Sacrobosco, on a range of subjects, from geometry to manual trades.⁵⁷ Of the abundant works newly available to music writers in the thirteenth century, few would have been as compelling as those devoted to the secrets of nature mentioned at the beginning of this essay. They included well-known compendia such as the *Secrets of Secrets* or the *Picatrix*, as well as a host of smaller treatises, from 'scientific' works such as the lapidaries cited above to how-to manuals collectively known

52. ROSE 1875, p. 424: *Et lapidis pyrite proprietas est, cum premitur et torquetur adurit membrum tunc quod permit ipsum.*

53. ROSE 1875, p. 396 (from chapter 29 of this treatise): *Et virtus vel proprietas [sic] eius est, quod si paciens vicium lapidis in renibus biberit e eo trito ad pondus sextet partis sicli, frangit lapidem et reduci in arenam minutam, et facit eum emittere per urinam, et libertur.*

54. YUDKIN 1990 is discussed with later secondary literature in DEWITT & HAINES 2008, p. 69-72 and HAINES 2008-1, p. 6-7.

55. HAINES 2008-1, p. 6-7 and DEWITT & HAINES 2008, p. 70-71.

56. See HAINES 2006-1, p. 389 and DEWITT & HAINES 2008.

57. See HAINES 2006-1, p. 387, 400 and 404.

in modern scholarship as *Fachliteratur*.⁵⁸ Their influence reverberated in Latinity from the highest levels down. Academic writers such as Roger Bacon and Albert the Great, two of the brightest lights of the thirteenth century, produced multiple works in this area, such as Bacon's edition of the *Secret of Secrets* and Albert's lapidary.⁵⁹ As a recurring attraction for writers throughout the thirteenth century, the secrets of nature constituted the underbelly of scholasticism. It should not surprise us, therefore, if some of the language and concepts of this literature were woven into music writing of the thirteenth century – fittingly, in an implicit and almost secret manner.

The amulet or *ligatura* would have presented an especially propitious locus for the mixing of music with the occult powers of nature. As argued in the first part of this essay, the amulet, ubiquitous in medieval quotidian life, was frequently used in connection with singing. *Ligatureae* and incantations went hand in hand. It cannot be overstated at present that the incantation was a major musical genre in the Middle Ages that has unfortunately received no musicological attention.⁶⁰ Medieval writers use the words *incantatio*, *carmen* and *praecantatio* interchangeably to name the incantation. One eight-century homily writer, for example, states that 'what we call charms or incantations (*carmine vel incantationes*) are those that ward off witchcraft, convulsions, boils, serpents, constipation'.⁶¹ The word *carmen* ('song' but also 'charm') confirms the incantation's identity as a song, and not just speech or simple recitation.

Thus the *ligatura* concept may have proved especially attractive to thirteenth-century music writers because of the word's cultural and semantic richness. For one, the topic of amulets (*ligatureae*) along with Qustā Ibn Lūqā's *De physicis ligaturis* was receiving renewed academic attention in the late Middle Ages thanks to the rise in popularity of 'secret' literature mentioned earlier.⁶² More importantly, the concept of *ligatureae* had regularly been associated with the songs performed in connection with them. To review in chronological order some of the writers cited in this essay, Saint Augustine included in his definition of a *ligatura* incantations (*praecantationibus*) performed with it; elsewhere the famous Church Father railed against 'those who seduce through charms (*ligaturas*) and through incantations (*praecantationes*)'; the sixth-century bishop of Arles Caesarius of Arles associated amulets with enchanters or incantation-singers (*praecantatores*); and the anonymous tenth-century penitential author made clear that the effectiveness of amulets depended on someone incanting a spell 'in some evil way'. The word medieval writers most often used to describe the one administering amulets was *incantator*, which can be translated as 'enchanter'. One tenth-century penitential condemned in one breath *incantatores* and amulets: 'there should be no magical cleric (*clericus magus*) or enchanter (*incantator*), and no one should make amulets (*phylacteria*)'.⁶³

The word *ligatura* as a descriptor of musical notes in the thirteenth century represented a radical departure from earlier nomenclature. Musical notes or groups of notes in early chant notations had each received traditional names taking after their shape. As discussed at the beginning of this essay, the two basic neumes were the *punctus* (point) and *virga* (staff). Multiple-note figures were assigned equally descriptive names such as the staircase-

58. On the *Picatrix*, see KIECKHEFER 2003, p. 6-7 and 133, and THORNDIKE 1923, p. 813-823.

59. THORNDIKE 1923, p. 567-571, 660 and 666; see HAINES 2006-1, p. 387, n. 47.

60. HAINES 2009, p. 127.

61. BOZOKY 2003, p. 35, n. 8: *Carmine vel incantationes, quas diximus, haec sunt: ad fascinum, ad spasmum, ad furunculum, ad dracunculum, ad alius ...*

62. BOUDET 2006, p. 124-125 and the sources cited there.

63. *Patrologia latina*, vol. 138, col. 409D: *Clericus magus et incantator non sit, neque phylacteria faciat.*

like *climacus* or the twisted *torculus*. These traditional neume names endured for centuries, as the surviving medieval neume tables recently tallied by Michael Bernhard make clear.⁶⁴

The thirteenth-century use of the term *ligatura* to describe musical note compounds broke dramatically with this tradition. This break coincided with the creation of a music writing code expressing both pitch and duration first used to notate Parisian *organa*, as is well known. In tandem with the term *ligatura* to describe a multi-note figure, thirteenth-century music writers used the terms *proprietas* for the first part of the *ligatura* and *perfectio* for the last part. In a landmark essay published in 1967, Fritz Reckow summarized the various permutations of *proprietas* and *perfectio* in music *ligaturae*. Graphic alterations to multi-pitch figures resulted in convoluted descriptions such as 'with *proprietas* and without *perfectio*'.⁶⁵

In a recently published article, I have stressed that music writers adopted these terms because they were part of the fashionable university jargon of the day found in such widely read works as Bartholomew the Englishman's *On the Property of Things* or the neo-Platonic *Book of Causes*. As a theological-philosophical metaphor, the concept of 'property' (and not 'propriety', as often translated) suited the first part of a note grouping, since all things were endowed with properties ultimately originating with God. The concept of 'perfection' suited the final part of the note grouping as that thing's culmination or completion; even more so than property, perfection originated in God, the most perfect being of all.⁶⁶ What I wish to further suggest in this essay is that for medieval music writers and their readers the word *proprietas* may well have had an added layer of esoteric meaning in connection with the novel idea of a musical *ligatura*.

It is important to emphasize that the *ligatura* concept in thirteenth-century music notation survives as the first systematic use of this word outside the traditional medical-magical context common from Antiquity onwards and described earlier in this essay. Once in a rare while one finds the *ligatura* concept as a metaphor, but never systematically used by a group of writers over a period of time. Caesarius of Arles, for example, says in one of his sermons that 'sin is a wound (*vulnus*), and penitence is the amulet of the wound (*ligatura vulneris*)', but this is only a passing figure for rhetorical effect.⁶⁷ I should also point out that the thirteenth-century musical nomenclature is not inspired by paleographic 'ligatures', i.e. two alphabet letters fused together, since *ligatura* used in this sense is distinctly post-medieval.⁶⁸ The earliest modern scholarship on this phenomenon labeled it 'letter-fusion' – 'Buchstaben-Verbindungen', as paleographer Wilhelm Meyer put it in the title of his landmark 1897 study – before eventually settling on the word 'ligature'.⁶⁹

The earliest application of the *ligatura* concept in music occurs in the anonymous *Common Treatise on Discant* (*Discantus positio vulgaris*) from around 1230, in the following passage:⁷⁰

A *ligatura* is many neighbouring notes bound one after the other (*plurium notarum invicem ligatio conjunctarum*)... When in discant two notes are bound, the first is a breve (*brevis*) and the second a long, unless the first is written larger than the second...

64. BERNHARD, 1997.

65. RECKOW 1967.

66. HAINES 2008-1.

67. CAESARIUS OF ARLES 1971, vol. 3, p. 96, lines 22-23: *Peccatum enim vulnus est, paenitentia ligatura vulneris est.*

68. HOWLETT 1997, col. 1609; NIERMEYER & VAN DE KIEFT 2002, vol. 2, p. 797-798.

69. MEYER 1897. On later usage, see most recently, DEROLEZ 2003, p. 52-53 et passim.

70. HIERONYMUS DE MORAVIA 1935, p. 190: *Ligatura est plurium notarum invicem conjunctarum ligatio, quae quidem in unison fieri non debet... Quandocumque duae notae ligantur in discantu, prima est brevis, secunda longa, nisi prima grossior sit secunda...*

This definition of the musical *ligatura* is terse: literally, ‘a binding (*ligatio*) of many neighbouring notes one after the other’. The next occurrence comes a decade or so later in a passage from the second chapter of the anonymous treatise later revised by John of Garland, and known awkwardly enough by its incipit as *Habito de ipsa plana musica* (*Having spoken about plainchant*).⁷¹

A bound figure (*figura ligata*) is wherever there is a number of notes joined together by their stems... Based on the opening part there are four categories, since some are called ‘with property’ (*cum proprietate*) – that is, with permanent property – some ‘without property’ (*sine proprietate*), some ‘through opposition with property’ (*per oppositum cum proprietate*), and some ‘without opposition, with property’ (*sine opposito, cum proprietate*). Whence the rule, ‘In every descending figure, property is when the first note has a stroke on the left side’.

Here, the anonymous author elaborates on the *ligatura* metaphor, providing the classic medieval definition of the *ligatura* and the four different types of property associated with it: with property, without, with opposite property (as later writers would put it), and without opposition.

The anonymous author of the pre-Garlandian treatise refers obliquely to an earlier teaching on the musical *ligaturae* and their *proprietates*; the passage given above concludes by citing a rule that was clearly in use prior to his treatise. This earlier teaching about *ligaturae* cannot be that of the *Common Treatise on Discant* from around 1230, since that treatise does not present the idea of *proprietas*. In other words, there likely circulated, perhaps orally, some form of this doctrine, perhaps in connection with the oral improvisations of polyphonic organa suggested by Anna Maria Busse Berger.⁷²

The *ligaturae-proprietas* idea in music may go back further yet. In the seventh chapter of his *Art of Measured Song* entitled ‘on *ligaturae* and their properties’, Franco of Cologne writes the following:⁷³

Now that simple figures have been discussed, let us speak about those that are composite or bound (*ligatae*), which are the same as those rightly called *ligaturae*. A *ligatura* is a joining together of simple figures (*conjunction figurarum simplicium*) arranged in set graphic strokes (*per tractus debitos ordinata*)... Moreover, some of these *ligaturae* [are called] ‘with property’, some without, some ‘with opposite property’; and this pertains to the beginning of the *ligatura*... Observe also that these differences are essential and specific to the *ligaturae* themselves. So that a *ligatura* with property differs essentially from one without like a rational animal from an irrational one... ‘Property’ is the note in the first part, in keeping with the

71. REIMER 1972, vol. 1, p. 44-48: *Figura ligata est, ubicumque fit multitudo punctorum simul iunctorum per suos tractus...* *A parte principii quatuor sunt species, quia quaedam dicitur cum proprietate, id est cum proprietate propria, quaedam sine proprietate, quaedam per oppositum cum proprietate, quaedam sine opposito cum proprietate.* *Unde regula: omnis figurae descendendo proprietas est, ut primus punctus habeat tractum a latere sinistro.* On the Garlandian treatises, see PINEGAR 1994, p. 85-105.

72. BUSSE BERGER 2006, p. 177-178.

73. FRANCONIS DE COLONIA 1974, p. 43-50: *Habito de simplicibus figuris, dicendum est de compositis vel ligatis, quod idem est, quae ligaturae proprie appellantur. Ligatura est coniunctio figurarum simplicium per tractus debitos ordinata...* *Item ligaturarum alia cum proprietate, alia sine, alia cum opposita proprietate; et hoc a parte principii ligaturae...* *Et nota istas differentias essentiales esse et specificas ipsis ligaturis. Unde ligatura cum proprietate essentialiter differt ab illa quae est sine, ut rationale animal ab irrationali...* *Proprietas est nota primariae inventionis ligaturae a plana musica data in principio illius...* *Omnis ligatura descendens tractum habens a primo punctu descendenter a parte sinistra, cum proprietate dicitur, eo quod sic in plana musica figuratur...* *Si autem caret omni tractu, sine proprietate dicitur...* *Omnis ligatura cum proprietate primam facit brevem...*

original concept of a *ligatura* handed down from plainchant (*a plana musica data*)... Every descending *ligatura* having a descending stroke on the left side of the first note is called 'with property' since that is how it is drawn in plainchant... If it lacks any stroke it is called 'without property'... Any *ligatura* with property makes the first note a breve (*brevem*)...

Near the middle of this key passage, Franco states that the original *ligatura* concept with *proprietas* denoting 'the note in the first part' was 'handed down from plainchant'; later writers add, 'handed down from or invented by (*vel inventa*) with plainchant'.⁷⁴ 'Plainchant', of course, refers to the fact that tying notes is how a *ligatura* 'is drawn in plainchant', as Franco states after this. But his suggestion that the concept of *proprietas* too was 'handed down from plainchant' is puzzling, since chant theorists prior to him do not mention it in connection with note compounds.

What exactly Franco means by this is not at all clear, but he does seem to imply that the *ligatura-proprietas* code originated in an earlier, orally transmitted tradition associated with certain Latin chants. Wherever it had originated, the *ligatura-proprietas* writing code was intentionally difficult, as anyone knows who has tried transcribing thirteenth-century *organa*. The notation is ambiguous, and can frequently be interpreted in different ways.⁷⁵ In other words, the *ligatura-proprietas* music writing tradition was not intended as a clear notational code easy for all to decipher, contrary to modern assumptions about writing as making things available and comprehensible to a wide public. Rather, it was designed as opaque, esoteric writing for a literate few.

Assuming that musico-scholastic writers of the thirteenth century took the *ligatura-proprietas* idea from a pre-existing orally transmitted tradition, four facts suggest that this tradition was originally inspired by medieval amulets. The first and more general fact is the longstanding connection between song – specifically incantations – and the use of amulets for hundreds of years prior to the 1230s when the musical *ligatura* concept first emerges with the *Common Treatise on Discant*. I have already put forward the evidence for this in the first part of this essay.

The second fact is a striking physical resemblance between the musical *ligaturae* of square notation and amulets. Shapes like the standard four-note *ligatura* with a tail hanging on the left side or the two-pitch shape with tails on either side, both shown in figure 5, bear a general resemblance to the standard string-and-pouch amulet shown earlier in figure 2. In particular, the dangling 'tails' or *caudae* of these notational shapes remind one of the amulet's string. Just as the string and amulet bind healing or transformative elements together, so does the musical *ligatura* to individual notes.

The square shape of the *ligaturae* of music especially recalls that of textual amulets or *breves*. As shown in figure 6, the standard ascending three-note musical *ligatura* at left seems to mimic the shape of the textual amulet at right, the folded rectangles of the reconstructed Canterbury amulet when placed down on its side. If flipped over to stand upright, the Canterbury *brevis* suggests the shape of another square-note *ligatura*, the three-note *torculus* shown in figure 7. There is something uncanny about these resemblances between musical notes and textual amulets, ubiquitous in the Middle Ages and thus a handy inspiration for a new way of music writing. What is more, the amulet would have worked well as an apt symbol for a writing code whose proper use was obscure and 'occult', restricted to the few who could write and decipher it.

74. COUSSEMAKER 1852, p. 278. On this treatise, see below.

75. E.g., c.f. the readings of *Sederunt* in HOPPIN 1978, p. 59-66 and ROESNER 1993, p. 15-29. See also APEL 1953, p. 215-258.

The third fact, one related to the second just mentioned, is the importance of folding to both amulets and music *ligaturae*. As mentioned earlier, folding was essential to certain amulets used in daily medieval life. In particular, the folding of textual amulets could have symbolic importance related to their potency. It turns out that the concepts of 'a fold' and of 'folding' were also integral to the new *ligaturae* of thirteenth-century music notation. Music writers call 'fold' or *plica* an extra note in the shape of a little stroke frequently appended to main square notes, such as the right-hand shape in figure 5. At the end of the passage cited a few paragraphs ago, Franco of Cologne puts it this way: 'any *ligatura* can take a *plica*', which we might translate from Latin to English as 'any amulet may take a fold (i.e. be folded)'. Very similar language is used by post-Franconian writers, including the anonymous author of the treatise modern editor Edmond de Coussemaker entitled *Things Related to the Art of Discant (Quaedam de arte discantandi)*. He describes the note called *plica* ('fold') by citing a definition first given by Lambertus in the late thirteenth century and subsequently cited verbatim by Jacques de Liège, among others. 'The *plica* is a note dividing the same sound into low and high, and ought to be produced in the throat with the larynx (*epiglottis*)'.⁷⁶ The writer goes on to describe various types of *plica* notes, such as the 'short (*breve*) *plica*' or the *semibreve* which, he says, 'should be folded (*plicata*)'. Having listed the different types of musical 'folds', he exclaims, 'no wonder there is no agreement in defining folded notes (*plicatis*)!'⁷⁷ He nevertheless continues to provide still more cases of *plicae*, those with a stem or tail (*tractus*), and so on.⁷⁸ At one point he declares that 'all *ligaturae* are foldable (*plicabiles*) at the end'.⁷⁹ It is important to stress that, like *proprietas* and other terms, the word *plica* appears as a descriptor of musical notes quite suddenly and without justification in the thirteenth century. A relation to amulets would explain this hitherto mystifying appearance.

The fourth and final fact supporting my hypothesis, and yet another striking parallel between amulets and music *ligaturae*, is the importance of *proprietas*. As I stated earlier concerning medieval amulets, *proprietas* was what made medieval amulets work. So intrinsic to music *ligaturae* was the notion of *proprietas* that Franco of Cologne entitled the seventh chapter of his famous treatise on mensural notation 'on *ligaturae* and their properties', the same chapter partly cited above. *Proprietas* was a more nuanced concept than *perfectio*; notes could only be either 'with' or 'without perfection'. But there are four types of *proprietas*, as first related in the pre-Garlandian treatise mentioned earlier (*Habito de ipsa plana musica*): notes can be with or without *proprietas*, 'through opposition' (*per oppositum cum proprietate*) and 'without opposition' (*sine opposite cum proprietate*).⁸⁰ Regardless of what the latter two cryptic categories mean exactly, the general application of *proprietas* in music is clear enough. A musical note can possess *proprietas* in a variety of doses.

This is suggestive of the wide range of *proprietates* attributed to *ligaturae* in Antiquity and the Middle Ages. As related above, the degree of an amulet's *proprietas* depended on several things, including the elements used, the operator handling the *ligatura*, the type of incantation sung and ritual performed over the amulet and where the amulet was placed. All of these elements went into the intricate make-up of an amulet's individual *proprietas*.

76. COUSSEMAKER 1852, p. 277: *Plica est nota divisionis ejusdem soni in gravem et in acutum, et debet formari in gutture cum epiglotto*. See HAINES 2006-2, p. 144-145. The word *epiglottis* should be translated as 'larynx' and not 'epiglotis', as pointed out in that essay.

77. COUSSEMAKER 1852, p. 277-278: *Nec mirum, cum diffinitio plicatis possit convenire*.

78. COUSSEMAKER 1852, p. 278.

79. COUSSEMAKER 1852, p. 280: *Sunt enim omnes ligaturae plicabiles in fine*.

80. See also HAINES 2008-1, p. 17 and n. 55.

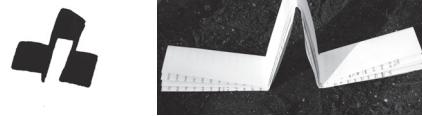
Figure 5. Four- and two-note compounds of thirteenth-century square notation.



Figure 6. Three-note compound and a textual amulet or *brevis*.



Figure 7. Other three-note compound and textual amulet or *brevis*.



So complex was *proprietas* that learned writers such as Qustā Ibn Lūqā acknowledged that it was inaccessible to reason; as cited earlier, the working of *ligaturae* came from 'their property (*ex proprietate*) and not from reasons through which we can understand them'.

As was the case with *proprietas*, musical 'amulets' could also lack *proprietas* altogether. Now, Aristotelian discussions of 'property' typically revolved around what kind of properties different things have, the most famous example of this being Bartholomew the Englishman's *Properties of Things*: a lack of property does not fit into such a paradigm.⁸¹ So, that a musical *ligatura* should lack property altogether seems more reminiscent of the practice of amulets than of Aristotelian discourse, as when Pliny the Elder, in the passage cited earlier, states that an amulet retains its property for a year, and then – by implication – loses it.

Given that the word *breve* or *brevis* denoted a special kind of textual amulet, as stated earlier, it is worth noting that the concept of a *breve* or *brevis* is closely linked to the idea of 'property' in thirteenth-century music notation. In musical *ligaturae*, the *breve* duration occurs by default in the first part of the note where property also is located. When the *ligatura* has *proprietas*, its default state is that of a *breve*. 'When in discant two notes are bound together', writes the anonymous author of the *Common Treatise on Discant* cited earlier, 'the first is a breve (*brevis*) and the second a long'; writes Franco of Cologne in the passage given above: 'any *ligatura* with property makes the first note a breve (*brevem*)'.

I do not mean to have suggested in this essay that music *ligaturae* were amulets in the Middle Ages. Rather, what I have argued for is a loose connection between the ubiquitous medical and ritualistic *ligaturae* of Antiquity and the Middle Ages and the new 'ligatures' of thirteenth-century music notation. This connection would have been obvious to medieval readers, even if it has required this essay to reveal it, so to speak. As I have argued here, both the concept and the physiognomy of medical amulets may have inspired the *ligatura* metaphor of thirteenth-century music notation. How far back this metaphor would have gone is difficult to say, but it seems that thirteenth-century writers were drawing on an earlier tradition. As I have pointed out, the pre-Garlandian anonymous writer implies certain orally transmitted rules; Franco's passing comment about the notion of *proprietas* being handed down from plainchant suggests a monastic origin of some sort. Perhaps

81. HAINES 2008-1, p. 15.

the origins of the elaborate *ligature-proprietas* music writing code lay in the vast ‘clerical underworld’ identified by Richard Kieckhefer in his important survey of magic in the Middle Ages. As Kieckhefer argues, this ‘underworld’ consisted of everyday priests, monks and friars often openly operating within the official structures of the medieval Church.⁸² Such an environment is attested, for example, in the admonitions by Augustine and Aquinas cited earlier in this essay.

Either way, it is difficult to believe that the multiple resemblances between the *ligaturae* of thirteenth-century music notation and medieval amulets were innocent or coincidental. Amulets, widely used and seen in daily medieval life, would have presented themselves as a handy and evocative model for a new way of codifying music around 1200. What better source for the esoteric music writing of the thirteenth century than the powerful, binding amulet of the singing *incantatores*?

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BIBLIOGRAPHY

ABEL 1971 : Abel Eugenius, ed., *Orphei Lithica accedit Damigeron de lapidibus*, Hildesheim, H.A. Gerstenberg, 1971.

APEL 1953 : Apel Willi, *The Notation of Polyphonic Music, 900-1600*, fifth edition, Cambridge, Mass., Mediaeval Academy of America, 1953.

AUGUSTINE OF HIPPO 1995 : Augustine of Hippo, *De doctrina Christiana*, R.P.H. Green ed. and transl., Oxford, Clarendon, 1995.

BACON 1859 : *Fr. Rogeri Bacon Opera quaedam hactenus inedita*, John Sherren Brewer ed., Roll Series 15, vol. 1, London, Longmans, 1859.

BERNHARD 1997 : Bernhard Michael, « Die Überlieferung der Neumennamen im lateinischen Mittelalter », in Bernhard Michael ed., *Quellen und Studien zur Musiktheorie des Mittelalters*, Munich, Bayerischen Akademie der Wissenschaften, 1997, vol. 2, p. 13-91.

BISCHOFF 1954 : Bischoff Bernhard, « Übersicht über die nichtdiplomatischen Geheimschriften des Mittelalters », *Mitteilungen des Instituts für Österreichische Geschichtsforschung*, LXII (1954), p. 1-27.

BOUDET & VÉRONÈSE 2006 : Boudet Jean-Patrice & Véronèse Julien, « Le secret dans la magie rituelle médiévale », *Micrologus*, XIV (2006), p. 101-150.

BOUDET 2006 : Boudet Jean-Patrice, *Entre science et nigromance: astrologie, divination et magie dans l'Occident médiéval (XII^e-XV^e siècle)*, Paris, Publications de la Sorbonne, 2006.

BOZOKY 2003 : Bozoky Edina, *Charmes et prières apotropaïques*, Typologie des sources du Moyen Âge occidental 86, Turnhout, Brepols, 2003.

BROOMFIELD 1968 : Broomfield F. ed., *Thomae de Chobham Summa confessorum*, Analecta mediaevalia Namurcensia, 25, Louvain, Nauwelaerts, 1968.

BUSSE BERGER 2006 : Busse Berger Anna Maria, *Medieval Music and the Art of Memory*, Berkeley, University of California Press, 2006.

CAESARIUS OF ARLES 1971 : Caesarius of Arles, *Sermons au peuple*, M.-J. Delage ed. and transl., 2 vols., Paris, Les Belles Lettres, 1971-1986.

CHEVALIER & GHEERBRANT 1996 : Chevalier Jean & Gheerbrant Alain, *The Penguin Dictionary of Symbols*, J. Buchanan-Brown transl., London, Penguin, 1996.

COUSSEMAKER 1852 : Coussemaker Edmond de, *Histoire de l'harmonie au Moyen Âge*, Paris, Didron, 1852.

82. KIECKHEFER 2003, p. 151-175.

DAVIS 1923 : Davis Tenney, *Roger Bacon's Letter Concerning the Marvelous Power of Art and of Nature and Concerning the Nullity of Magic*, Easton, Penn., Kessinger, 1923.

DEROLEZ 2003 : Derolez Albert, *The Paleography of Gothic Manuscript Books From the Twelfth to the Early Sixteenth Century*, Cambridge, Cambridge University Press, 2003.

DEWITT & HAINES 2008 : DeWitt Patricia & Haines John, « Johannes de Grocheio and Aristotelian Natural Philosophy », *Early Music History*, XVII (2008), p. 47-98.

EAMON 2006 : Eamon William, « The “Secrets of Nature” and the Moral Economy of Early Modern Science », *Micrologus*, XIV (2006), p. 215-235.

FANDRE 1944 : Fandre A., *Le catgut: les ligatures et les sutures chirurgicales à travers les âges*, Paris, Masson, 1944.

FRANCONIS DE COLONIA 1974 : Franconis de Colonia, *Ars cantus mensurabilis*, G. Reaney & A. Gilles eds., *Corpus scriptorum de musica*, 18, Rome, American Institute of Musicology, 1974.

GUY DE CHAULIAC 1997 : Guy de Chauliac, *Inventarium sive Chirurgia magna*, M. McVaugh ed., Leiden, Brill, 1997.

HAINES 2006-1 : Haines John, « Anonymous IV as an Informant on the Craft of Music Writing », *Journal of Musicology*, XIII (2006), p. 375-425.

HAINES 2006-2 : Haines John, « Lambertus's epiglotus », *Journal of Medieval Latin*, XVI (2006), p. 142-163.

HAINES 2008-1 : Haines John, « Proprietas and perfectio in Thirteenth-century Music Theory », *Theoria*, XV (2008), p. 5-29.

HAINES 2008-2 : Haines John, « From Point to Square: Graphic Change in Medieval Music Script », *Textual Cultures*, III (2008), p. 30-53.

HAINES 2009 : Haines John, « Incantations: Singing off the Page », *Avista Forum Journal*, XIX (2009), p. 127.

HAINES 2010-1 : Haines John, « Why Music and Magic in the Middle Ages? », *Magic, Ritual and Witchcraft*, V (2010), p. 149-172.

HAINES 2010-2 : Haines John, *Medieval Song in Romance Languages*, Cambridge, Cambridge University Press, 2010.

HAINES (forth): Haines John, « Performance Before c. 1430: An Overview », in C. Lawson & R. Stowell eds., *The Cambridge History of Music Performance*, Cambridge, Cambridge University Press, forthcoming.

HARMENING 1979 : Harmening Dieter, *Superstitio: Überlieferungs- und theoriegeschichtliche Untersuchungen zur kirchlich-theologischen Aberglaubensliteratur des Mittelalters*, Berlin, Schmidt, 1979.

HIERONYMUS DE MORAVIA 1935 : Hieronymus de Moravia, *Tractatus de musica*, S. M. Cserba ed., Freiburger Studien zur Musikwissenschaft 2, Regensburg, Pustet, 1935.

HILDEGARD OF BINGEN 1988 : Hildegard of Bingen, *Le livre des subtilités des créatures divines*, 2nd ed., Pierre Monat ed. and transl., Grenoble, Millon, 1988.

HOPPIN 1978 : Hoppin Richard, *Anthology of Medieval Music*, New York, Norton, 1978.

HOWLETT 1997 : Howlett David ed., *Dictionary of Medieval Latin from British Sources*, fasc. 5, Oxford, Oxford University Press, 1997.

KIECKHEFER 2003 : Kieckhefer Richard, *Magic in the Middle Ages*, Cambridge, Cambridge University Press, 2003.

MC CALL SMITH 2002 : McCall Smith Alexander, *The No. 1 Ladies' Detective Agency*, New York, Anchor Books, 2002.

McKITTERICK 2000 : McKittrick Rosamond, Review of Kenneth Levy's *Gregorian Chant and the Carolingians*, Princeton, 1998, *Early Music History*, XIX (2000), p. 279-291.

MC NEILL & GAMER 1938 : McNeill John & Gamer Helen, *Medieval Handbooks of Penance: A Translation of the Principal Libri Poenitentiales and Selections from Related Documents*, New York, Columbia University Press, 1938.

MCVAUGH 2003 : McVaugh Michael, « *Incantationes in Late Medieval Surgery* », in G. Marchetti et al. eds., *Ratio et superstition. Essays in Honor of Graziella Federici Vescovini*, Louvain-La Neuve, Fédération internationale des instituts d'études médiévales, 2003, p. 319-346.

MCVAUGH 2006 : McVaugh Michael, *The Rational Surgery of the Middle Ages*, Micrologus Library 15, Florence, Sismel, 2006.

MEYER 1897 : Meyer Wilhelm, *Die Buchstaben-Verbindungen der sogenannten gothischen Schrift*, Abhandlungen der Königlichen Gesellschaft der Wissenschaften zu Göttingen, Philologisch-historische Klasse, new series, vol. 1, number 6, Berlin, Weidmann, 1897.

NICOLAS 1853 : Nicolas Jean, *Sancti Thomae Aquinatis doctoris angelici ordinis praedicatorum Summa Theologica*, vol. 3, Parma, Fiaccadori, 1853.

NIERMAYER & VAN DE KIEFT 2002 : Niermeyer Jan Frederik & Van de Kieft C., *Mediae latinitatis lexicon minus*, 2 vols., Leiden, Brill, 2002.

OLAUS MAGNUS 1972 : Olaus Magnus, *Historia de gentibus septentrionalibus*, John Granlund ed., Copenhagen, Rosenkilde and Bagger, 1972.

OLSAN 2003 : Olsan Lea, « Charms and Prayers in Medieval Medical Theory and Practice », *Social History of Medicine*, XVI (2003), p. 343-366.

Paléographie musicale I: *Le codex 339 de la bibliothèque de Saint Gall (x^e siècle), Antiphonale missarum sancti Gregorii*, Paléographie musicale, I, Solesmes, Abbaye Saint-Pierre, 1889.

PINEGAR 1994 : Pinegar Sandra, « On Rhythmic Modes », *Theoria*, VIII (1994), p. 73-112.

PLINY THE ELDER 1938 : Pliny the Elder, *Historia Naturalis*, H. Rackham transl., Cambridge, Mass., Harvard University Press, 1938-1962.

RECKOW 1967 : Reckow Fritz, « *Proprietas und perfectio: zur Geschichte des Rhythmus, seiner Aufzeichnung und Terminologie im 13. Jahrhundert* », *Acta musicologica*, XXXIX (1967), p. 115-143.

REIMER 1972 : Reimer Erich ed., *Johannes de Garlandia: De mensurabili musica, kritische Edition mit Kommentar und Interpretation der Notationslehre*, 2 vols., Beihefte zum Archiv für Musikwissenschaft, 10-11, Wiesbaden, F. Steiner, 1972.

ROESNER 1993 : Roesner Edward, *Le Magnus Liber de Notre Dame de Paris*, 1. *Les quadrupla et tripla de Paris*, Monaco, L'Oiseau-Lyre, 1993.

ROSE 1875 : Rose Valentin, « Aristoteles *De lapidibus* und Arnoldus Saxo », *Zeitschrift für deutsches Altertum*, XVIII (1875), p. 321-455.

SCHMITZ 1883 : Schmitz H. Joseph, *Die Bussbücher und die Bussdisciplin der Kirche*, Mainz, Kirchheim, 1883.

SKEMER 2006 : Skemer Don, *Binding Words: Textual Amulets in the Middle Ages*, University Park, Penn., University of Pennsylvania Press, 2006.

THORNDIKE 1923 : Thorndike Lynn, *A History of Magic and Experimental Science During the First Thirteen Centuries of Our Era*, vol. 1, New York, Macmillan, 1923.

VÉRONÈSE 2007 : Véronèse Julien, *L'Ars notoria au Moyen Âge: Introduction et édition critique*, Micrologus Library, 21, Florence, Sismel, 2007.

WATTENBACH 1958 : WATTENBACH Wilhelm, *Das Schriftwesen im Mittelalter*, 4th ed., Graz, Akademische Druck- u. Verlagsanstalt, 1958.

WEILL-PAROT 2006 : Weill-Parot Nicolas, « Encadrements ou dévoilement: l'occulte et le secret dans la nature chez Albert le Grand et Roger Bacon », *Micrologus*, XIV (2006), p. 151-170.

WILCOX & RIDDLE 1995 : Wilcox Jonathan & Riddle Judith, « Qustā Ibn Lūqā's *Physical Ligatures* and the recognition of the placebo effect », *Medieval Encounters*, I (1995), p. 1-25.

YUDKIN 1990 : Yudkin Jeremy, « The Influence of Aristotle on French University Music Texts », in A. Barbera ed., *Music Theory and Its Sources: Antiquity and the Middle Ages*, Notre Dame, Ind., Indiana University Press, 1990, p. 173-189.

Interpreting the deluxe manuscript: exigencies of scribal practice and manuscript production in Machaut

Heinrich Besseler provided a durable model for the interpretation of the character of late medieval musical manuscripts in a path-breaking article of 1925.¹ Building upon the judgment and vast experience of his teacher Friedrich Ludwig, Besseler laid out his views as an introduction to the first scholarly description of the recently-discovered manuscript Ivrea, Biblioteca Capitolare 115, placing it in a new narrative of the history of fourteenth-century music:

Die mittelalterliche Handschrift ist stets eine zum persönlichen Gebrauch für einen Musiker- oder Bestellerkreis angelegte Sammlung, die mit ganz vereinzelten Ausnahmen (Adam de la Halle, Machaut, vielleicht auch Binchois[...]) Werke verschiedener Komponisten, meist auch zeitlich oder räumlich nicht unmittelbar Zusammengehöriges vereinigt, sei es als faszikelweise nach und nach entstandene Gebrauchshandschrift, sei es als Kopie nach verschiedenartigen Vorlagen. Es fehlt das für die Zeit nach 1500 so bezeichnende ökonomisch eingestellte Zwischenglied: der Verleger, der die laufende Produktion vereinigt, den Geschmack der Zeit beobachtet und nach Möglichkeit das Zeitgemäße herausbringt.[...] Die Handschrift ist nur einmal da und hat ihren Wert als dieses individuelle Gebilde; nur so will sie auch bei der wissenschaftlichen Bearbeitung aufgefaßt werden.²

Stanley Boorman formulates the matter differently in his remarks introducing the article on manuscript sources in the revised *New Grove*, but fundamentally makes the same points:

1. BESSELER 1925, and 1927-1. Besseler laid out a broader historical narrative in BESSELER 1927-2. On Besseler's relationship to Ludwig, see GÜNTHER 1987. On Besseler's service to the Nazi state, see POTTER 2001.

2. BESSELER 1925, p. 170: 'The medieval manuscript is always a *collection* designed for the personal use of a circle of musicians or patrons, which, with only a few isolated exceptions (Adam de la Halle, Machaut, perhaps Binchois as well [...]) gathers works of different composers, for the most part works that do not belong together either chronologically or geographically, whether as *Gebrauchshandschriften* assembled gradually, a fascicle at a time, or whether as a copy from diverse exemplars. What is lacking is the economic connecting link so characteristic for the period after 1500: the publisher, who coordinates day-to-day production, observes current tastes and insofar as possible turns out up-to-date products. [...] A manuscript is *unique* and its value depends on its quality as *this* particular entity; and only in this way will scholarly treatment comprehend it'.

A [...] distinction [between a manuscript and a printed source], which can stand as a generalization, is that the MS is a unique object, while printed sources exist in many copies; that a manuscript represents the requirements of a single purchaser or owner, while printed sources must cater to many purchasers with diverse interests; as a corollary, that a manuscript contains a distinctive set of versions of the music it contains, while each copy of a printed edition purports to contain exactly the same material; and that a manuscript is normally produced to order, and passed to its owner by some personal contact, while printed sources require almost industrial connections between printer, publisher and subsequent owners.³

Implicit in Besseler's view of late medieval sources is his conviction of the value of the *Gebrauchshandschrift*, a term impossible to translate elegantly. *Gebrauchs* indicates that the object is suited for everyday practical use, and thus we might render the term as 'daily user manuscript'. It is probably what Boorman has in mind when he speaks of 'functional manuscripts'.⁴ For Besseler, the *Gebrauchshandschrift* is distinguished by its modest appearance and its value for establishing a critical text, especially when there are signs of correction, and when additions made to the manuscript argue that the users were knowledgeable in music. Against this type he sets deluxe manuscripts (*prunkvolle Handschriften*), prepared for a noble patron as fashionable trinkets and therefore not offering the best readings.⁵ In positioning Ivrea 115 in the fourteenth-century manuscript tradition, Besseler notes that after the *Roman de Fauvel* (in the version of Paris, Bibliothèque nationale de France, fr. 146), with its nineteen modern motets, the next complete codex, Ivrea 115, falls more than a generation later: *Die erste vollständig erhaltene Quelle nach der Fauvelfassung von 1316 und daher für die Musikgeschichte des 14. Jahrhunderts von zentraler Bedeutung, ist die Handschrift der Kapitelbibliothek zu Ivrea. [...] Sowohl Text wie Musik zeigen veifach Rasuren und Verbesserungen. Es handelt sich zweifellos um eine Gebrauchshandschrift.*⁶ Because they are not daily user manuscripts, the central Machaut manuscripts had no place in Besseler's core narrative. The discovery of Ivrea 115 only served to highlight a lamentable gap in the manuscript record of the fourteenth century, painful after the generous record for both polyphony and secular monophony in the thirteenth century. Despite momentous stylistic developments, we have no anthology manuscripts that transmit a cross-section of French developments for the first half of the fourteenth century. What we have are small manuscripts – such as the Brussels *rotulus* – or just fragments.⁷ The main large sources before Ivrea 115 remain the deluxe *Roman de Fauvel* manuscript (fr. 146), from towards the beginning of the century, and the deluxe Machaut manuscripts from towards the middle.⁸

Leo Schrade's editorial work for the nascent series Polyphonic Music of the Fourteenth Century – polyphony in the *Roman de Fauvel*, the works of Philippe of Vitry (insofar

3. BOORMAN 2001, p. 792.

4. *Ibid.*, p. 793.

5. BESSELER 1925, p. 176.

6. BESSELER 1925, p. 185-186: 'The first source surviving complete after the Fauvel copy of 1316, and therefore of central importance for fourteenth-century music history, is the manuscript of the Biblioteca Capitolare at Ivrea. [...] Text and music have numerous erasures and corrections. It is doubtless a *Gebrauchshandschrift*'.

7. Brussels, Bibliothèque royale, 19606; Cambrai, Médiathèque municipale, B. 1328; Paris, BnF, fr. 571; Paris, BnF, n.a.lat. 2444; Paris, BnF, fonds de Picardie 67, etc.

8. Besseler's article just missed the announcement of the discovery of Paris, BnF, n.a.fr. 23190 (Trém, dated 1376), though he took account of this manuscript in his 1927 appendix to the study (BESSELER 1927-1, p. 235-241). It did not change his overall narrative characterizing the source tradition. On the date 1376, see BENT 1990-2.

as Schrade could determine them), polyphonic mass cycles, and the complete works of Machaut – generated several accompanying scholarly studies. His survey of the chronology of fourteenth-century music for the 1955 conference at Wégimont castle, though bound up with old skirmishes with Besseler concerning the ‘romantic’ nature of Machaut’s music, and new skirmishes with Pirrotta concerning what is really ‘new’ about the *Ars nova*, is important for its revision of Besseler’s model of the character of manuscript sources.⁹

Soon Schrade introduced the English term ‘repertory manuscript’, the sort of manuscript that gathers a cross-section of works for active performance at a particular institution. More nuanced than a simple ‘anthology’ or ‘miscellany’, and having a slightly different focus from the *Gebrauchshandschrift*, a ‘repertory manuscript’ is really a document of reception history.¹⁰ Better to judge historical developments, Schrade wanted an index of precisely which works maintained themselves in active performance, whether they were works of the past still found compelling in a new present, or whether they were new works that had recently succeeded in gaining a foothold. In this light, Schrade expresses strong reservations concerning the *Roman de Fauvel* as a source. Since the musical insertions serve an external purpose – an *admonitio* to the ruler – one cannot conclude that old works were pieces that had maintained themselves in the repertory, only that they fit certain criteria making them apt for inclusion in the *Roman de Fauvel*. The appearance of such old works was thus accidental. Nor can one conclude that modern compositions selected for the special context of the Roman are representative of a living modern repertory, because once again external criteria – ones not related to music – prompted their inclusion.

Schrade finally leaves us with a view of the fourteenth-century manuscript tradition even more discouraging than that of Besseler: as deluxe manuscripts collected for special purposes, neither the *Roman de Fauvel* nor the Machaut manuscripts fit in; the Machaut manuscripts are too sumptuous to serve for performance, nor does their repertory – the complete works of one composer – reflect a particular functioning performance venue. Schrade’s assessment of Machaut’s monophonic works (the lais and virelais) can serve as an example of the consequences. Since they appear in no ‘repertory manuscript’, he writes them out of the mainstream of music history: ‘neither the lais nor the virelais became part of the general musical repertory’.¹¹ Owing to a gap in the source tradition of a preferred manuscript type, even manuscripts and repertoires that do survive fall into the gap.

Specialized studies undertaken more recently have shown some limitations of Schrade’s notion of the ‘repertory manuscript’, for it has proven difficult to find a source that satisfies Schrade’s criteria. For example, the years of activity involved in collecting and assembling the enormous repertorial anthologies Oxford, Bodleian Library, Ms. Canon. Misc. 213 and Bologna, Museo Internazionale e Biblioteca della Musica Q15, suggest that the respective scribes potentially copied numerous pieces – incorporated from this or that fascicle passing through – that were actually of limited interest. (To make an analogy from the days of long-playing records, sometimes one bought a whole album to obtain the one sought after song.)

As for the *Roman de Fauvel*, recent scholarship finds that the level of sophistication exercised by the compiler in judging the appropriateness of a given work, old or new, was quite a bit higher than even Schrade imagined. Old works epitomize a healthy past state of government (and of music?), or perhaps ironically, in drawing upon censorious works of

9. SCHRADE 1959, p. 37-59, with discussion p. 59-62.

10. See SCHRADE 1956-1, p. 10-11 and 39; and the discussion in EARL 1983, p. 31-33.

11. SCHRADE 1956-1, commentary notes, p. 21. See also SCHRADE 1958, vol. 2, p. 843-850.

Philippe the Chancellor, leave open the possibility that there is nothing new in the current state of worldly corruption. The newest works were not 'selected' but composed *ad hoc* by the most radical composer(s) of the day, expressly for the purpose of illustrating stages of the narrative.¹² In other words, it is not just some reference in the text of some pre-existing work that illustrates the story, but the style of the music itself. Healthy (old) works are set against perverse (new) works. For polemical reasons, it was in the interest of the compiler of the collection to draw upon the most advanced styles of the most advanced composers of the day to make his point, and this indeed is a matter of extraordinary interest to scholars writing a history of the *Ars nova*.

Schrade's reservations concerning the nature of the *Roman de Fauvel* as a repertory apply also to the Machaut manuscripts. The broad chronological swath of a late Machaut manuscript surely incorporates very early works irrelevant to any notion of a then-current performing repertory.¹³ On the other hand, these manuscripts do include collections of works that at one time or another served to entertain and instruct particular courts. Among them are early works probably written for King John of Luxembourg, followed by a large collection of works for the court of Bonne of Luxembourg (wife of John, duke of Normandy, from 1350 King John II) at Vincennes in the 1340s, including many of the lais and virelais that Schrade could not place.¹⁴ After Bonne's death in 1349 there is a gap in Machaut's productivity, then we find a collection of works representing new activity of the 1360s, centered at Reims, written for the royal court, especially for Charles, duke of Normandy (from 1364 King Charles V).¹⁵ Coherent groups of works at one time fulfilling the requirements of specific courts or patrons are doubtless broken up by single works, individual commissions and gifts, the whole now flowing together in a uniform meta-collection, which had its own significance for Machaut himself.

Margaret Bent's work on Bologna Q15 adds a new dimension to the picture, for here is an enormous repertory – a *Gebräuchshandschrift* in Besseler's terms – that has determined many facets of the narrative of music history in the early fifteenth century, as for example views of the development of the unified mass cycle.¹⁶ In fact, 'we may be subtly seduced into an insufficiently critical approach to our prime witness, and into a reluctance to accept how massively the scribe's personal selection and editing decisions imposed idiosyncratic biases and limitations both on his collection and on our view of the body of music for which we depend on him'.¹⁷ The copyist, it seems, had a very personal agenda in the selection and organization of pieces, and this agenda changed over the fifteen years or so

12. Schrade assigned dates to several compositions based on historical references in their texts; for example, he placed the motet *Garrit Gallus / In nova / Neuma* in 1314; see SCHRADE 1956-2, p. 336-338). On the basis of rapidly evolving musical style, Bent showed that the motet was composed closer to 1317, setting texts that illustrated an earlier moment in the ongoing narrative; see BENT 1998.

13. Reinhard Strohm's term is 'living repertory'. See STROHM 1987; see also Strohm's later comments in discussions following the papers, p. 137, 165, and 183, as well as the papers of BENT 1990-1; STAHELIN, 1990, p. 158. See also recent views of the nature of the repertory of representative late fourteenth-century manuscripts in KÜGLE 1997, p. 53-79; and PLUMLEY & STONE 2008, p. 43-55 (French), p. 129-142 (English).

14. On the vibrant state of the château de Vincennes in the period of Bonne of Luxembourg (none of the buildings of that time survive), see CHAPELOT & LALOU 1996.

15. Part of the gap in Machaut's productivity in the 1350s is filled by works for King Charles of Navarre; see BOWERS 2004. In judging Bower's important revisions of the Machaut biography, I would place far more emphasis on circumstantial connections to Bonne of Luxembourg in the 1340s; I cannot accept the notion that Machaut served Charles of Navarre in the South in the 1350s.

16. BESSELER 1952, col. 95.

17. BENT 2008, p. 1-2.

devoted to this collection. It is a collection, in short, that informs us, 'especially about reception and changes of taste'.¹⁸

The thought that any particular manuscript – as long as it meets certain criteria – can convey the broad concerns of a particular epoch of late medieval music history is illusory. There is no center, no mainstream, and no central manuscript of repertory around which to write our history. What we possess are the remains of local and specialized repertoires. The repertory of the Ivrea codex is no less suspect than the repertory of a Machaut manuscript. In the end, we are left with Boorman's wise statement: 'The MSS are, after all, the only evidence that we have for the existence of a large part of our musical heritage, and many elements of the music are preserved only by virtue of the scribe's decisions'.¹⁹ In this sense, Besseler's 'daily user manuscripts', as well as Schrade's 'repertory manuscripts' are no more or less useful than deluxe manuscripts; both are important, for they are all we have; no matter what their exterior purpose and function may have been, both are unique objects and require the most detailed and circumspect individual study in order to weigh their contribution to a history of music. As our experience and perception of individual manuscripts and their contents grows, so too will our ability to draw more refined insights.

My concern here is to demonstrate that the Machaut manuscripts – deluxe manuscripts transmitting Machaut's complete works at different stages in his career – can teach us something useful about musical developments in the *Ars nova*, beyond what they teach us about Machaut alone. I am only concerned with six manuscripts: Paris, BnF, fr. 1586 (Machaut ms. C), the Ferrell-Vogué ms. (Vg)²⁰, Paris, BnF, fr. 1584 (A), Paris, BnF, fr. 22545-22546 (F-G), Paris, BnF, fr. 1585 (B), and Paris, BnF, fr. 9221 (E). Although the several manuscripts provide a veritable catalogue of production techniques for organizing a large and uniform collection of distinct genres, comprising long narrative poems, narratives with lyrical insertions, collections of lyrics without music, lais with or without music, polyphonic motets and mass, textless hocket, and polyphonic or monophonic strophic chansons in fixed forms, detailed codicological description is not the issue here. Instead I will focus on a few moments of tension that I perceive in the production process, moments when a task does not go so smoothly. For I believe that these rough edges are vestiges left by broader issues of musical development in these years.

Paris fr. 1586 is our earliest extant 'Machaut manuscript', and there is evidence to support the view that it was in fact the earliest complete-works manuscript of Machaut, mostly copied in the late 1340s, broken off in 1349 on the death of the intended recipient Bonne of Luxembourg, and finished in the early 1350s, perhaps for her husband, now John II, king of France.²¹ Although it alone cannot begin to fill the gap in musical developments since the *Roman de Fauvel*, it is in fact the earliest large music manuscript in the period between *Fauvel* and Ivrea 115, even though it falls some thirty years after *Fauvel*. If I have interpreted certain traces correctly, fr. 1586 does turn out to shed indirect light on those formative years.

The Ferrell-Vogué MS (Vg) was probably copied in the late 1360s and early 1370s for Gaston Fébus, later passing through the hands of Yolande of Bar, queen of Aragon.²²

18. BENT 2008, p. 2.

19. BOORMAN 2001, p. 807.

20. Inaccessible for so many years after the death in 1916 of its owner, the Marquis Melchior de Vogué, the Ferrell-Vogué ms. is currently on loan to the Parker Library, Corpus Christi College, Cambridge.

21. EARP 1995, p. 78.

22. EARP 1995, p. 29-30, 59-61, 84. I now presume that Yolande did not return the manuscript Vg, borrowed in 1389, to the court of Foix after the death of Fébus in 1391. Apparently she also kept a manuscript of Fébus's *Livre de la chasse*, also borrowed in 1389 and not returned; see PONSICH 2009, p. 282.

The musical notation is outstanding, arguably the supreme achievement of all surviving musical manuscripts of the fourteenth century.

Paris, BnF, fr. 1584 (A), copied in the 1370s, opens with an original index (fol. A^v-B^v) headed *Vesci l'ordenance que .G. de Machau wet qu'il ait en son livre* ['Here is the order that G. de Machaut wants his book to have'] followed by the oft-reproduced pair of large-format miniatures depicting Machaut setting to work on his artistic project, each heading a ballade introducing Machaut's Prologue to his complete works.²³ This manuscript has the strongest claim of being in some sense directly supervised by the author. As the index caption implies, that supervision primarily involved fixing the order of works, including the order of each individual musical work. The index – actually a prescriptive table of contents – alters details, some small, some large, of the order of works in earlier manuscripts.²⁴ Some infelicities of ordering that nevertheless remain – discussed below – show precisely how difficult the task was for manuscript production, even for highly skilled scribes.

Two volumes, Paris, BnF, fr. 22545-22546 (F-G), comprise the next source, which in most respects is the most complete of the large Machaut manuscripts, though art historical research has shown that it was decorated posthumously in the 1390s. One presumes that the poetry and music were copied in the same period. The careful ordering of works and the accuracy of the copy suggest, however, that F-G was prepared one last time from authentic exemplar material.

Considering just these four sources, and for the moment leaving fr. 1585 and fr. 9221 out of the equation, it is clear that sumptuously copied books for rich patrons can be trustworthy documents. Besseler assumed that deluxe manuscripts, copied for the personal use of rich patrons, and not intended for performance, were of little value to establish a text. I treat these four sources seriously as witnesses because the scribes did their professional best to provide superbly accurate texts, and this care was exercised regardless of whether or not they were to be used for practical performance.²⁵ Besides numerous erasures and corrections of pitches or rhythms, an enormous number of corrections involve the coordination of text and music: scribes were quite fastidious about conveying this most difficult aspect of the exemplar.²⁶ All four manuscripts were probably copied from Machaut's own exemplar material, slightly differently constituted at different stages of his career.

Two additional manuscripts put us in more nebulous territory. Paris fr. 1585 (B), as Ludwig established in the early twentieth century, is an exact copy of Vg, except, as Margaret Bent noted, for the final narrative poem, the *Prise d'Alexandre*.²⁷ It is by no means a deluxe manuscript, but I include it here because of its close connection to Vg and to Paris fr. 9221. Paris fr. 1585 was copied on paper in great haste by a number of scribes, apparently to serve as a rough and ready exemplar, and indeed it was used as such for parts of fr. 9221. Unfortunately the work of the two scribes responsible for music – I hesitate to credit them as true 'music scribes' – was so hasty that the source is quite inaccurate. No conclusions may be drawn from fr. 1585 as an independent source.

23. There is a facsimile of the index of fr. 1584 in EARP 1989, p. 483-485, and McGRADY 2006, Pl. 17 (fol. B^v) and 18 (fol. A^v).

24. EARP 1989, p. 482.

25. BENT 1990-1, p. 144-146, notes that almost any manuscript can be performed from; here my point concerns the fact that the deluxe Machaut manuscripts would surely have been stored in the private quarters of princes, and were not normally accessible to performers.

26. See EARP 1991-1.

27. On the relationship between Vg and fr. 1585, see BENT 1983, p. 53-60, and EARP 1983, p. 102-107.

Finally, Paris fr. 9221 (E), like fr. 22545-22546 a product of the 1390s, was copied for John, the duke of Berry. The editor seems to have had no access to authentic exemplar material. While the manuscript conveys the distinct idea of a complete-works 'Machaut manuscript', other markers are absent. First, there is no concern for Machaut's carefully conceived ordering of works.²⁸ Second, some redundancies in the collection, such as the appearance of some ballades both as poems and as musical settings, have been arbitrarily and inconsistently edited out.²⁹ Third, the musical readings are notably uneven, not only with regard to accuracy but also with regard to certain notational conventions. Thus fr. 9221 would seem to be the sort of manuscript that Besseler characterized as the rather useless *prunkvolle Handschrift*.

Margaret Bent has shown that conjunctive variants support the notion that more than half of fr. 9221's motets, ballades, rondeaux, and virelais derive directly from fr. 1585, itself a hasty copy of Vg.³⁰ Other pieces in fr. 9221 that do not derive from fr. 1585 are among those works of Machaut found in contemporary anthologies. This leads me to posit the following scenario: there was a commission for a complete manuscript of Machaut, a kind of manuscript that in some circles must have had a certain cachet as a desirable object, but there the compiler experienced difficulty in assembling the full collection of works. Although various individual items were available, including the entire *Voir Dit* and several pieces of Machaut's music that had remained popular into the 1390s, circulating in individual copies or *rotuli*, the majority of the works had dropped out of currency. Existing Machaut manuscripts were in private hands, not available to a workshop, and neither Machaut himself nor his exemplar material were available to consult. But now our ms. Vg was undergoing rebinding, let us say after the death in 1391 of the original owner, Gaston Fébus (the manuscript was now in the possession of Yolande of Bar, queen of Aragon, and Jean of Berry's niece), and it is possible that fr. 1585 was copied quickly from Vg, specifically to serve as an exemplar for the fr. 9221 project. Alternatively, unscrupulous individuals profited from Vg's disbound state to calque a Machaut manuscript and offer copies to a presumed market. In this scenario, the ready availability of a complete exemplar may have inspired the collection of a new Machaut manuscript, our fr. 9221 – in the first place. When a more recent redaction of this or that work was available, it was incorporated into the new manuscript, and fr. 1585 served to fill in the gaps.³¹ Probably the poor

28. For example, the intermingling of motets and rondeaux in Machaut manuscript fr. 9221, due to the extraordinarily large format of the manuscript, demonstrates the distance of this source from the author; on the organization of this section, see EARP 1983, p. 126-129.

29. Concerning this editing, see LEACH 2002, p. 475, n. 30.

30. On the copying of pieces from fr. 1585 to fr. 9221, see BENT 1983, p. 61-82, and EARP 1983, p. 122-126. STROHM 1984, p. 116, n. 7, argues that the exemplar for the rondeau *Se vous n'estes* (R 7) in fr. 9221 may have come from Flanders, indeed, that a Flemish manuscript was the source for the music in fr. 9221 not copied from fr. 1585; see EARP 1995, p. 93.

31. The same is true of texts, though text readings have not been evaluated as systematically as the music has. Yet it is clear that there are modernized forms, as Paul Imbs sagely noted many years ago: 'Le ms E est le ms le plus corrompu par rapport à ce que nous croyons être le texte original, d'après les deux mss de base du XIV^e s. Mais on peut penser, et c'est cela la question que je voudrais poser, qu'il n'y a pas de contradiction entre votre impression et celle d'un lecteur du texte, car ces dégradations sont en réalité des actualisations du point de vue du langage. Le langage a été modernisé. sans tenir compte p. ex. du rythme du vers, simplement pour faciliter la lecture à quelqu'un qui voulait donc lire le texte; et alors, du point de vue du philologue, c'est une corruption, mais du point de vue du destinataire, c'est sans aucun doute une amélioration: le texte est plus facile à comprendre. Alors est-ce qu'on ne pourrait pas dire que du point de vue musical aussi il s'agissait d'une adaptation à une nouvelle sensibilité musicale, adaptation réalisée par quelqu'un qui a été chargé de faire un ms lisible, comme s'il sortait de la plume de l'auteur ou du compositeur, à l'époque même où le ms était remis à son destinataire?' Paul Imbs in MACHAUT 1982, p. 138.

quality of fr. 1585's text and music was a matter of indifference; a beautiful manuscript could still be manufactured from it, and fr. 9221 stands as proof.

Plate 13 shows a work not copied from fr. 1585, the ballade *Phyton, le merveilleus serpent*.³² Two traits lead me to believe that this work derives from an individual source. First, there is an individual ascription to Machaut (Pl. 13, line 3, after the tenor designation), something never found in 'authorized' Machaut manuscripts, because of course everything in such a manuscript is by Machaut: individual ascription would be superfluous. Fr. 9221 is the only Machaut manuscript that provides several such individual ascriptions, and all of them are attached to works not derived from fr. 1585.³³ Second, ligature usage in the musical notation exhibits some patterns not found in the uniform (and conservative) exemplar material authorized by Machaut. The c.o.p. ligature with the first note dotted, dotted semibreve-semibreve in minor prolation, is a form never seen in the main Machaut manuscripts, though the dot is acceptable at the next higher level, dotted breve-breve in imperfect tempus.³⁴ The modernized forms in fr. 9221 surely indicate that they were copied from modernized sources (Pl. 13, three examples in the melisma, lines 1-2, and three more in the melisma, line 3). The fact that the fr. 9221 scribes maintained such details argues that they exercised little scribal initiative, and tended to copy what was before them. In dealing with polyphony notated in separate parts, I imagine that scribes were wary of the imaginative paraphrase. Besides, scribes of deluxe manuscripts were probably hired for their skilled calligraphy, not necessarily for their musical knowledge.³⁵

Despite the fact that large parts of fr. 9221 have little more to offer than further corruption of the already corrupt fr. 1585 – in this sense fr. 9221 provides the very model of Besseler's conception of the deluxe manuscript – other parts were copied from diverse exemplars. Since little scribal initiative masks the individual traits of these sources, fr. 9221 is a deluxe manuscript that opens a window on the elusive lower levels of transmission. Traces of a living repertory hiding in fr. 9221 give us a rare index of Machaut reception at a major center in the 1390s.³⁶

32. Ballade 38 in LUDWIG 1926, p. 46; and SCHRADE 1956-1, p. 132-133.

33. Besides *Phyton, le merveilleus serpent* (B 38), pieces specifically ascribed to Machaut in fr. 9221 include *Nes que on porroit* (B 33), fol. 178^r (within the *Voir Dit*); and several lais, either at the beginning of the work or as an *explicit*: *Pour ce qu'on* (L 3), fol. 113^v; *Amis t'amour* (L 10/7), fol. 117^v; *Un mortel lay* (*Le Lay Mortel*, L 12/8), fol. 118^v; *Pour ce que plus* (*Un Lay de Consolation*, L 23/17), fol. 125^v; *Maintes fois* (L 13, text only), fol. 127^v; and *En demandant* (L 24/18), fol. 129^v. In addition, each division of the music section begins with a rubric specifically ascribing the section to Machaut (fols. 107^r, 131^r, 147^r, 159^r). Elsewhere, there are ascriptions to Machaut at the beginning of the index (fol. C^r), *Prologue* (fol. 1^r), *complainte 3, A toy, Henri* (fol. 13^v), and one of the narrative poems, the *Jugement dou roy de Navarre* (fol. 45^r).

34. EARP 1983, p. 125-126.

35. What may appear as scribal initiative in fr. 9221 I prefer to interpret as faithful copy of multiple exemplars. Compare the differing views in EARP 1989, p. 489-492 and BENT 1983, p. 72-74. See also BOORMAN 1981, p. 325: 'We can say with some confidence that a scribe who unexpectedly, or occasionally, breaks his normal habit is likely to be reflecting a feature of his exemplar'. The most dramatic alteration of music in fr. 9221 (it would be difficult to term it 'modernization') is the fact that eight of the seventeen lais with music found in fr. 9221 exhibit an alternative layout of *ouvert/clos* phrases within stanzas, an arrangement unique to this manuscript; see EARP 1983, p. 309-326.

36. The Machaut poems copied into Philadelphia, University of Pennsylvania Libraries, Fr. 15 derive directly from Paris, BnF, fr. 9221; see EARP 1995, p. 115-116. LEACH 2002, p. 475, n. 30 indicates that some lyrics in Paris, BnF, n.a.fr. 6221 (Machaut ms. I) also derive from fr. 9221. On Paris, BnF, n.a.fr. 6221, see also CONNOLLY & PLUMLEY 2006.

The beauty of a manuscript depends to a great extent on the elegance of its layout.³⁷ In the Machaut manuscripts, the layout was determined by the entry of text, even in music sections. After the page was ruled for text, with guide lines drawn to define the text block (usually in two or three columns), the text scribe set to work.³⁸ Room was left for the decorated initial, and the text was entered, leaving spaces between syllables as necessary to accommodate melismas. Long monophonic lais could run on for pages without difficulty. It was the various polyphonic genres that presented more of a challenge, as we shall see. After the text was entered, the staves were ruled. (There seems to be no set practice of entering decorated initials before or after the music: both practices are found in these manuscripts.) The staff ruler did not require access to the exemplar – copying text went ahead meanwhile – but followed a simple directive, entering a staff in the broad space left above any text syllables, stopping and starting the red lines of the staff as needed in order not to cut through initials (or the space allotted to them). Untexted voices – *tenor*, *contratenor*, or *triplum* – were handled no differently; what to us seems perplexing or amusing, the appearance of ‘*Tenor or or or*’ or ‘*Triplum um um*’, simply directs the staff-ruler, who again does not have the exemplar material to hand, that music is to ‘set’ these ‘words’ as well, and thus that staves are to be drawn.³⁹

Layout of a music manuscript by initially copying text had been the tradition from the thirteenth century and before. Further research is required to determine how long this most meticulous manner of copying was followed, with its staves that start and stop so elegantly, and its residual texts that stand out so beautifully from the surrounding music.

By the second half of the fourteenth century, it is clear that uniform ruling of the staves could come first in manuscripts devoted exclusively to music, for example, in Chantilly, Bibliothèque du Musée Condé, 564. Initial entry of the staves did not at first affect the priority of entering text before music, however, for the scribes of Chantilly 564 still entered text before music. In cases where text and music scribe were the same person, however, some purely musical manuscripts of the late fourteenth and early fifteenth century exhibit a back-and-forth between music entry and text entry.⁴⁰ Once again, further research is needed to determine when scribal practice definitively changed to the entry of all music before text. This last practice is unambiguous in many sources from after 1450, such as the small-format chansonniers, and in choirbooks such as Brussels, Bibliothèque Royale, 5557.⁴¹

While it did not matter as regards accuracy of notation whether staves were entered before or after the text, the newer production technique did bring consequences. For one, residual texts of chansons had to be inelegantly written over or between staff lines. Potentially more serious was the effect on manuscript organization. As always, the format of the individual opening controlled the organization of the codex. This was a workable principle for motet manuscripts, since a single motet conveniently fit across an opening, and the recent research of Kevin Moll has shown that the typical divisions in mass

37. On the source of this elegance in musical manuscripts of the late middle ages – the Golden ratio – see HAINES 2009, p. 338-340.

38. For some details of manuscript production in Machaut, including the question of ruling, entry of text, ruling of staves, and entry of music, see EARP 1983, p. 170-196 and 216-219. A truly detailed account of ruling in the Machaut manuscripts is still lacking.

39. On the use of a *rastrum* to draw the five-line staves all at once, see HAINES 2009, p. 363-366.

40. Some instances of this practice in Bologna Q15 (noted in EARP 1983, p. 257-260), can now be studied in the facsimile (BENT 2008).

41. See the facsimile, CHOIRBOOK 1989 .

compositions also fit an opening.⁴² Thus one consequence was that larger or smaller areas of blank staves were left in the lower portion of an opening, depending on the length of the piece copied. A certain indifference in leaving expensive blank space can be seen in some staves-first deluxe music manuscripts, such as Chantilly 564 and Florence, Biblioteca Medicea Laurenziana, Palatino 87 (Squarcialupi Codex). When cost was more of a factor, the extra space after entry of a motet or mass segment was used to accommodate short works, such as polyphonic chansons, and in this instance a more serious consequence had to be accepted, for now the work-to-work ordering of the manuscript became chaotic, since only the length of a work and the amount of space at hand became primary concerns behind a given work's position in the manuscript. In the Machaut manuscripts, entering text before anything else afforded the best control of piece-to-piece order, an aspect that scribes made every effort to maintain. Indeed, it is possible that the attempt to maintain the order of works was the single most important component of Machaut's 'supervision'.

It was a fixed rule established in motet manuscripts by the late thirteenth century that all voices that sounded simultaneously were to be visible simultaneously, and thus the manuscript opening controls layout. Yet there is one exception among the Machaut manuscripts: in the earliest extant manuscript, Paris fr. 1586, the scribe occasionally reverts to an ancient and outmoded model, through-copying voice parts across page turns without regard for the visibility on a single opening of simultaneously sounding parts. This comes as a surprise, for this mode of presentation had not been seen since the motets in Florence, Biblioteca Medicea Laurenziana, Plut. 29.1 (F) and Wolfenbüttel, Herzog August Bibliothek, 1099 (1206) (W₂). Simultaneous visibility of a work's voices had been the rule for perhaps as long as seventy-five years before fr. 1586 was copied, and it is never an issue encountered in later Machaut manuscripts or other musical manuscripts of the time. In attempting to understand the issues afoot in fr. 1586, it is worth recalling Besseler's interpretation of the crucial change in manuscript layout during the thirteenth century, when the individual manuscript opening, coordinated with the size of the codex, first began to control the organizational layout of works:

Im allgemeinen ist die Musikhandschrift eine Anweisung auf Musiker, die aus ihr musiziert haben; Prunkhandschriften sind ganz vereinzelt und fallen, wie die große Fauvel-Handschrift oder der Squarcialupi-Kodex aus dem Rahmen des übrigen heraus. Bei der ersten Gruppe fällt auf, daß die meist sehr umfangreichen, aber kleinen Kodizes schwerlich dazu bestimmt waren, auf einem Pult frei aufgestellt zu werden. Meist muß man durch Auflegen der Hand die aufgeschlagene Seite geöffnet halten. Mehr als 3-4 Musiker konnten also nicht einsehen (eine Miniatur W₂, f. 31 zeigt drei aus einem Kodex singende Personen), und überdies hat die hier überlieferte Solistenkunst eine eigentümliche Unabhängigkeit von der Aufzeichnung. Es wurde vielfach, vielleicht überwiegend auswendig musiziert, das beweist die Motettenschreibung der Handschriften in Quadratnotation. Die Stimmen folgen einander ohne Rücksicht auf gleichzeitige Lesbarkeit, oft steht das Triplum auf dem Recto, der Schluß des Motetus mit dem Tenor auf dem Verso desselben Blattes. Man könnte annehmen, für die Ausführung seien einzelne Stimmen ausgeschrieben worden. Da sich aber die Handschriftenanlage gerade in dieser Hinsicht bald charakteristisch ändert, wird man mit mehr Recht die Tatsache als einen Grundcharakter jener Musik deuten. Als solcher ist sie wohl zu beachten.⁴³

42. MOLL 2004. Charles Hamm's theory of the 'fascicle-manuscript' as the fundamental level of music circulation of course depends on the opening as the basic unit. See HAMM 1962 and the critique in BENT 1981. KEITEL 1976 attempted to apply Hamm's theory to Machaut manuscript fr. 1585, but her 'first-generation fascicle manuscripts' in that source are imaginary, excessively extrapolated from changes of scribal hands to speed production; on scribes in fr. 1585, see EARP 1983, p. 196-215.

43. BESSELER 1925, p. 173. 'In general the music manuscript is a set of instructions to musicians that have performed from it; deluxe manuscripts, such as the large Fauvel manuscript or the Squarcialupi Codex, are

Besseler finds the new pattern of copying first in Montpellier, Bibliothèque Inter-Universitaire, Section Médecine, H. 196, in which the field of view is organized at first by a single page in single columns, with all voices simultaneously visible, and then by a single page in two columns, a pattern that he first finds in Montpellier fascicles 7 and 8, associating the decisive change with the appearance of the new motet style of Petrus de Cruce. We need not debate the merits of the oral vs. written argument here. Those uncomfortable with Besseler's formulation might see the decisive moment, for example, as a moment that mirrors the change from the motet in its original manifestation, a style subject to active, anonymous, communal efforts spawning whole families of related works, to a style that is no longer subject to intervention and recomposition, in which works now take on a more modern sense of the word 'work'. In other words, the individual piece has more autonomy and this is reflected in its manuscript presentation. I favor an even simpler explanation: the initial indifference in Florence 29,1 and Wolfenbüttel 1099 to the simultaneous visibility of simultaneously sounding motet voices has a purely practical justification. For the sake of economy and efficiency, scribes had determined to copy voices individually, and the *seriatim* copy of voices as if they were monophony can be seen as a first response to a moment when a new, unfamiliar genre had not yet acquired a standard manner of presentation in the manuscripts. What is significant is that Besseler seeks to link a change in manuscript presentation with a fundamental change of attitude. Whether or not we accept his theory – let alone my own thoughts – explaining the phenomenon is not the issue here; what is important to me is that Besseler recognized a problem in the first place. We are free to explain the facts in a different way if we wish, but it is clear that we must make an effort to address any and all changes of format caused by difficulties in accommodating a given genre into a manuscript.⁴⁴

Thus some explanation must be found for an infelicity of manuscript presentation seen in Paris fr. 1586, when a scribe reverts to the splitting of polyphonic voices of chansons across page turns.⁴⁵ In my view, this awkwardness indicates that the polyphonic chanson in the new melismatic style, with its texted cantus and untexted lower voice or voices, actually was a new and unfamiliar phenomenon when at a particular moment in the production of

completely isolated and have a different frame of reference from the others. Among the first group [i.e., the Notre-dame manuscripts] it is striking that the codices, mostly very large in contents but small in size, were scarcely destined to be set open on a music stand. Most of them have to be held open by placing the hand on the open page. Thus more than three to four musicians could not read from them (a miniature in W₂, fol. 31^r shows three persons singing from a codex), and beyond this the solo art transmitted here has a peculiar independence from its manuscript presentation. To a great extent, perhaps primarily, one performed *from memory*, as is proved by the motet notation of the manuscripts in square notation. The voices follow each other without concern for simultaneous legibility; often the triplum stands on the recto, the end of the motetus with the tenor on the verso of the same folio. One might presume that separate parts were written out for performance. But since manuscript format soon distinctively changes in this very respect, one would more justifiably interpret the situation as a fundamental characteristic of the earlier music. Surely it is to be regarded as such'.

44. Rebecca Baltzer, in *The Thirteenth-Century Motet and the Role of Manuscript Makers in Defining a Genre*, a paper delivered at the 57th Annual Meeting of the American Musicological Society, Chicago, 1991, treated this issue with more refinement. The manuscript of Lambertus or 'Pseudo-Aristotle', Paris, BnF, lat. 11266, with its seven motets, is particularly interesting in that it shows the scribe in the process of calculating 'page turns'. For more on this source, see EVERIST 1981.

45. These works include, within the original series of sixteen ballades, *Helas! tant* (B 2), tenor copied across fol. 158^{r-v}; *Se je me pleing* (B 15), cantus copied across fol. 164^{r-v}; and, in the new, unordered, series: *Sans cuer / Amis / Dame* (B 17), *Sanz cuer* copied across fol. 198^{r-v}; *De petit po* (B 18), cantus copied across fol. 199^{r-v}; *De Fortune* (B 23), cantus copied across fol. 200^{r-v}; *Quant j'ay l'espart* (R 5), cantus copied across fol. 202^{r-v}; and *Cinc, un* (R 6), cantus copied across fol. 203^{r-v}. A facsimile of fol. 200^{r-v} is in BOFILL SOLIGUER 1991, p. 22.

fr. 1586, a skilled scribe faced the problem of copying a series of these works. In short, the notion that the new style really was unfamiliar to professional scribes still in the late 1340s provides an additional clue, however indirect and circumstantial, that the new style of polyphonic fixed-form chansons was consolidated relatively later than we have thought.⁴⁶

Another, simpler, explanation is that the scribe was trying at all costs to maintain a particular order of works, perhaps one demanded by Machaut as supervisor of the manuscript. Since the order of the chansons in fr. 1586 (after a core group of ordered ballades, nos. 1-16) is not the order exhibited by any later manuscript, this is not a hypothesis that can be verified. Yet there is another small difficulty with the presentation of fixed-form chansons in fr. 1586 that supports the notion that the polyphonic chansons in Paris fr. 1586 are earlier works in the history of the new style. Fr. 1586 is the earliest extant music manuscript to utilize *ouvert/clos* shorthand in texted works. Maybe I am again over-interpreting the occasional awkwardness shown by the music scribe of fr. 1586 on this point, but difficulties with a basic notational convention of a new style may indicate that the convention was indeed new and still somewhat unfamiliar to the scribe.⁴⁷

Both of these moments of tension in fr. 1586 reflect on the problem of the gap in sources in early fourteenth-century France. Despite momentous stylistic developments, we have no anthologies that transmit a cross-section of the early development of the polyphonic chanson. The main large sources remain the deluxe *Roman de Fauvel* manuscript at the early end of the formative years, transmitting not a single new-style polyphonic chanson, and Machaut on the late end, with presumably early examples of the style. But the indirect evidence I have presented, though amounting only to small matters of manuscript presentation, tends to bolster the argument that Paris fr. 1586, the earliest Machaut manuscript, is quite an early repository of the new-style polyphonic chanson, witnessing a critical moment in the development of a new genre.⁴⁸

We know that the order of works within the different genres was important to the author, as the previously-mentioned heading to the index in fr. 1584 proves (*Vesci l'ordenance que .G. de Machau wet qu'il ait en son livre*). In the manuscripts, this order was controlled by a careful piece-to-piece prior layout of the text, maintaining the rule (at least after fr. 1586) that voices sounding together stand simultaneously visible in the manuscript. Recently, Anne Walters Robertson has argued for the critical importance of the precise order of a core group of works, motets 1-17.⁴⁹ In their prescribed order, fixed from the first collection, the motets trace the steps of a mystical spiritual journey of the Soul to Christ. Other issues surrounding the works, such as patron, motet function, chronology and style, etc., are henceforth nuanced by Robertson's view of this collection of works in this order. No particular difficulties of manuscript production stood in the way of keeping the seventeen motets in order from manuscript to manuscript, because a given order is particularly easy to maintain with motets; indeed, the format of the manuscripts in this period seems ideally suited to the easy accommodation of a motet across an opening.

46. EARP 1983, p. 222. Indirect evidence from surviving poetry already argues as much; see EARP 1991-2.

47. On corruption at *ouvert/clos* cadences, see EARP 1983, p. 178-179, n. 338. I am assuming that the textless dances added to Paris, BnF, fr. 844 (the *Manuscrit du roi*) are earlier; in texted music I know of no earlier examples than the ballades, virelais, and lais in fr. 1586. The exception may be in a fragment (Maggs) transmitting Machaut's *Le lay mortel* (L 12/8), still untraced after its sale in 1927; see EARP 1995, p. 104.

48. More recent work on the development of polyphonic song in the early fourteenth century includes EVERIST 2007 (other works cited there); and some remarks in LEACH 2010. The views I expressed in 1991, placing the origins of Machaut's polyphonic chansons relatively late (late 1330s/early 1340s) remain unshaken.

49. ROBERTSON 2002.

As repertoires, other genres cultivated by Machaut tend to exhibit the same pattern as the motets: there is an early core repertory (for example, ballades 1-16 in fr. 1586) that recurs in later manuscripts with additional works added at the end of the series. Such a principle of growth from manuscript to manuscript suggests that simple chronology explains the placement of the newest works in the series.⁵⁰ It was much easier, however, for a scribe to maintain the order of a core group of motets than it was to maintain the order of a core group of fixed-form polyphonic chansons. Songs are highly unpredictable in length, depending on their number of voices and treatment of melisma, and this can lead to infelicities of manuscript layout. In the Machaut manuscripts, overall order is not as clear in the chansons as it is in the motets.

Fr. 1584 provides an instructive example because we can measure the order of works realized in the manuscript against the order of works established by the original index – really a prescriptive table of contents – of the same manuscript.⁵¹ There are several cases in which the scribe was unable to preserve the order of polyphonic ballades and rondeaux prescribed by the index, because of the ironclad rule that a polyphonic work must not be split across a page turn. Irregularities in order can almost always be traced to the desire to respect this rule. For example, after beginning the rondeau section on a recto and copying seven two-voice rondeaux, the text scribe of fr. 1584 reached the middle of a verso (see Pl. 14a; *Se vous n'estes*, R 7, appears at the top of fol. 477^r). The index indicates that two four-voice works were to follow, *Tant doucement* (R 9) and *Rose, lis* (R 10), then a three-voice work, *Vo dous regars* (R 8). There was too much room in the opening for one four-voice work, not enough room for two, and again splitting a work across a page turn was not an option. Faced with the potential of an unsightly, unfilled blank space on the bottom half of the recto, the text scribe elected to reduce the two four-voice works to two three-voice works by eliminating the space allotted to the two *tripla*. Later, the music scribe left *Tant doucement* with only two voices, while filling in all four voices of *Rose, lis* (in Pl. 14a, note the *triplum* of *Rose, lis* entered at the top of fol. 478^r, with the indication ‘*Contratenor*’, intended for *Tant doucement*, left unerased). Still later, a correcting scribe recopied *Tant doucement* as a proper four-voice work on a blank recto before the beginning of the rondeau section (see Pl. 14b; note the comparatively ugly appearance that results from copying initials and residual text on a page with staves entered first).

In Vg, the rondeaux begin instead on a verso, and No. 7 in the series now falls at the top of a recto (see Pl. 15a, with *Se vous n'estes* at the top of fol. 318^r). I believe that the scribe was again supposed to copy the four-voice *Tant doucement* next but, left with insufficient space to accomplish the task, solved the problem by promoting the following three-voice work, *Vo dous regars*, to this position. Ludwig followed the order of Vg in his modern edition, but since problems of page planning led to an adjustment at just this point in the manuscript, I believe we should prefer the order of fr. 1584’s index as Machaut’s desired order, an order finally realized successfully in fr. 22546. Before we open the question of the potential significance of this order, we must determine what the order actually is.

Such examples alert us to large-scale problems of organization and manuscript layout specifically in the Machaut corpus, although there may be broader ramifications. The issue of text-setting returns us to a more general aspect of musical development in the Ars

50. This view was first enunciated by HOEPFFNER 1908, p. xl ix. On details of Hoepffner’s theory and its application to the corpus of literary and musical works, see EARP 1995, p. 189-194 and 273-277.

51. See discussion of the index in EARP 1983, p. 52-83; and EARP 1989, p. 482-487; the question of the order of the rondeaux in fr. 1584 and Vg is addressed in EARP 1983, p. 69-87. On the literary implications of the index, see McGRADY 2006, p. 98-105.

nova. The Machaut scribes devoted meticulous attention to the correlation of syllables and notes, teaching us that precise text-setting was a normal part of composition in the fourteenth century, that it was an aspect controlled by the composer, utilized for expressive purposes, and an aspect that careful copying could transmit.⁵² Machaut's popular rondeau *Se vous n'estes pour mon guerredon nee* (R 7) in Vg provides a good illustration of a scribal practice that assured clarity in texting, here playing off two styles, one of luxuriant melisma against one of calculated syllabic text-setting that directs our attention to the rimes équivoques. The concern for fastidious accuracy on the part of the music scribe is immediately apparent (see Pl. 15b).

Despite the control over text and music that manuscript production gave to text scribes, and despite the ingenuity exercised by music scribes in realizing specific authorial intent, any music beginning with an untexted passage was technically difficult to copy. At the opening of Machaut's *Credo*, only the upper two voices sing *Patrem*, and then all four voices join together at *omnipotentem*. In the tenor and contratenor parts, the word *Patrem* is present as a cue identifying the *Credo* of the mass, but this word was not to be overlaid with notes. This led to an error in fr. 1584, corrected by hairlines. In Vg, the scribe was more skilled, and faithfully represented the composer's intention (see Pl. 16a).

Occasionally a work opens with a longer melisma, and this tended to push the limits of the technology of text layout in this period. When the scribe of fr. 22546 began copying the text of the motet *Christe / Veni / Tribulatio* (M 21) in the usual place at the top of the opening, that left the music scribe no room for the extended untexted *introitus* passage for *triplum* and *motetus* that opens the work. The missing voices had to be stripped in at the bottom of the page (see Pl. 16b; note the cue, a cross in a circle, at the opening of the *motetus* voice, fol. 122^v col. 2; the corresponding cue is at the bottom of fol. 123^r, supplying the *introitus motetus*; the answering cue for the *introitus triplum* at the bottom of fol. 122^v has been lost in trimming). Similarly, many late fourteenth- and early fifteenth-century chansons begin with a textless melisma, and eventually scribes were able to handle this increasingly popular gambit, as seen in Gacien Reyneau's rondeau *Va t'en mon cuer* in Chantilly 564 (fol. 56^v). But Machaut may have anticipated this style. I consider the opening passage of the ballade *De toutes flours* (B 31) to be textless, despite the fact that the traditional demands of music copying still required the first syllable to be placed at the edge of the staff. Here again, friction between the exigencies of manuscript production and innovations in musical style indicate a moment of stylistic change.⁵³

One last point of tension evident in the work of Machaut's scribes takes us back to the early manuscript fr. 1586. I detect traces of confusion in the musical notation regarding the application of the rules for imperfection and alteration at the level of prolation, i.e., the relationship of minims and semibreves. It appears that the scribe is not yet completely comfortable with the rationalized system described in the *Libellus cantus mensurabilis*.⁵⁴

Perhaps as late as the 1340s, fast passages in motets, though notated with minim stems, retained the default patterns prescribed for unsigned semibreves by the early Ars nova theorists.⁵⁵ In these circumstances, no one had to worry about the imperfection of semibreves, let alone the alteration of minims. The crucial development of the minim rest (still completely lacking in the *Roman de Faivel*) had allowed the notation of hockets in fast

52. For the early fifteenth century, see BOONE 1999. The principles Boone derived for Dufay are operating in Machaut as well, arguably with even greater subtlety. See EARP 2005, and EARP (forth).

53. For further discussion of this instance, see EARP (forth).

54. Concerning stem errors in fr. 1586, see EARP 1983, p. 220-221, n. 385, and p. 308-309.

55. BOCKHOLDT 1963.

note values by the middle 1320s. Hocket texture was useful for sectional articulation in the new motet style, but even hocket passages follow the set rhythmic patterns, simply leaving a rest here or there in the standard patterns. Patterns outside the regular prescriptions first appear with motets such as Philippe de Vitry's *Impudenter circumivi / Virtutibus* (c. 1330?) and are systematically exploited in Machaut's *Amours qui ha / Faus Semblant / Vidi Dominum* (M 15, c. 1345?). Full regularization of the principles of imperfection and alteration as they had operated since the time of Franco at the level of breves and longs, now applied to faster note values (breve-semibreve and semibreve-minim), did not occur overnight. But when precisely did the doctrine described in the *Libellus cantus mensurabilis* become second nature: in the course of the 1330s, or as late as the 1340s?

Study of this question, one not yet dealt with by musicologists, will have to take into account the notational practice of fr. 1586. While the text-music relationship is beautifully controlled in this manuscript – attesting to the skill of the music scribe – it is also a witness to occasional confusion and ambiguity in the notation of rhythm in the monophonic virelais (minim or semibreve?). Ubiquitous iambic rhythms, in stark contrast with trochaic motet rhythms, are a trait that marks most of Machaut's early virelais; yet it seems that the scribe does not fully understand the mix of minims and semibreves required to effect a short-long rhythm by the new rules. Given the lack of scribal initiative typically exhibited in a deluxe manuscript, the confusion may well reflect the state of the exemplar, and thus probably Machaut himself, who, with Philippe de Vitry and others of his generation, would have had to accustom himself to the notational idiosyncrasies of the prolation level.

Much of the discussion in this paper has been speculative, due to the indirect nature of the evidence. Other scholars are free to interpret the small inconsistencies of scribal practice in these manuscripts in a different way. In any case, it is time to imagine some motivations for those inconsistencies, which can teach us something about the boundaries of musical practice, boundaries that are apparent even in deluxe manuscripts. In sum, the Machaut manuscripts touch on principles governing the ordering of works in a manuscript (especially fr. 1586, Vg, and fr. 1584), on traces of local repertoires and lower levels of transmission otherwise unattested (fr. 9221), on text-setting as a parameter of composition (especially fr. 1586 and Vg), on questions of scribal initiative (fr. 9221), on the historical development of genres (fr. 1586), and on the development of rhythmic notation in the Ars nova (fr. 1586).

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BIBLIOGRAPHY

BENT 1981 : Bent Margaret, « Some Criteria for Establishing Relationships between Sources of Late-Medieval Polyphony », in Ian Fenlon ed., *Music in Medieval and Early Modern Europe: Patronage, Sources and Texts*, Cambridge, Cambridge University Press, 1981, p. 295-317.

BENT 1983 : Bent Margaret, « The Machaut Manuscripts Vg, B and E », *Musica disciplina*, XXXVII (1983), p. 53-82.

BENT 1990-1 : Bent Margaret, « Manuscripts as Répertoires, Scribal Performance and the Performing Scribe », in POMPILIO 1990, p. 138-148.

BENT 1990-2 : Bent Margaret, « A Note on the Dating of the Trémoïlle Manuscript », in Bryan Gillingham & Paul Merkley eds., *Beyond the Moon: Festschrift Luther Dittmer*, Musicological Studies, 53, Ottawa, Institute of Mediaeval Music, 1990, p. 217-242.

BENT 1998: Bent Margaret, « Fauvel and Marigny: Which Came First? », in Margaret Bent & Andrew Wathey eds., *Fauvel Studies: Allegory, Chronicle, Music, and Image in Paris*, Bibliothèque Nationale de France, MS français 146, Oxford, Clarendon, 1998, p. 35-52.

BENT 2008: Bent Margaret, *Bologna Q15: The Making and Remaking of a Musical Manuscript*, I: *Introductory Study*, II: *Facsimile*, Ars Nova, Nuova serie, 2, Lucca, Libreria Musicale Italiana, 2008.

BESSELER 1925 : Besseler Heinrich, « Studien zur Musik des Mittelalters, I. Neue Quellen des 14. und beginnenden 15. Jahrhunderts », *Archiv für Musikwissenschaft*, VII (1925), p. 167-252.

BESSELER 1927-1 : Besseler Heinrich, « Nachtrag zu Studie I (AfM 7) », *Archiv für Musikwissenschaft*, VIII (1927), p. 233-241.

BESSELER 1927-2: Besseler Heinrich, « Studien zur Musik des Mittelalters, II. Die Motette von Franko von Köln bis Philipp von Vitry », *Archiv für Musikwissenschaft*, VIII (1927), 137-258.

BESSELER 1952 : Besseler Heinrich, « Bologna, Kodex BL », in Friedrich Blume ed., *Die Musik in Geschichte und Gegenwart*, vol. 2, Kassel, Bärenreiter, 1952, col. 95-99.

BOCKHOLDT 1963 : Bockholdt Rudolf, « Semibrevis minima und Prolatio temporis: Zur Entstehung der Mensuraltheorie der Ars nova », *Musikforschung*, XVI (1963), p. 3-21.

BOFILL SOLIGUER 1991 : Bofill Soliguer Joan, « Cuestiones de notación consideras en la ballade 'De Fortune' (No. 23) de Guillaume de Machaut », *Anuario musical*, XLVI (1991), p. 5-25.

BOONE 1999 : Boone Graeme M., *Patterns in Play: A Model for Text Setting in the Early French Songs of Guillaume Dufay*, American Musicological Society Monographs, Lincoln and London, University of Nebraska Press, 1999.

BOORMAN 1981: Boorman Stanley, « Limitations and Extensions of Filiation Technique », in Ian Fenlon ed., *Music in Medieval and Early Modern Europe: Patronage, Sources and Texts*, Cambridge, Cambridge University Press, 1981, p. 319-346.

BOORMAN 2001: Boorman Stanley, « Sources, MS, §I. Introduction », *The New Grove Dictionary of Music and Musicians*, Oxford and New York, Oxford University Press, 2001, XXIII, p. 791-817.

BOWERS 2004 : Bowers Roger, « Guillaume de Machaut and His Canonry of Reims, 1338-1377 », *Early Music History*, XXIII (2004), p. 1-48.

CHAPELOT & LALOU 1996 : Chapelot Jean et Lalou Élisabeth eds., *Vincennes: aux origines de l'État moderne. Actes du colloque scientifique sur Les Capétiens et Vincennes au Moyen Âge*, Paris, Presses de l'École normale supérieure, 1996.

CHOIRBOOK 1989 : *Choirbook of the Burgundian Court Chapel*: Brussel, Koninklijke bibliotheek ms. 5557, introduction by Rob C. Wegman, Facsimile Editions of Prints and Manuscripts, Peer, Musica-Alamire, 1989.

CONNOLLY & PLUMLEY 2006 : Connolly Margaret & Plumley Yolanda, « Crossing the Channel: John Shirley and the Circulation of French Lyric Poetry in England in the Early Fifteenth Century », in Godfried Croenen & Peter Ainsworth eds., *Patrons, Authors and Workshops: Books and Book Production in Paris around 1400*, Synthema, 4, Leuven, Peeters, 2006, p. 311-332.

EARP 1983: Earp Lawrence M., *Scribal Practice, Manuscript Production and the Transmission of Music in Late Medieval France: The Manuscripts of Guillaume de Machaut*, Ph.D. diss., Princeton University, 1983.

EARP 1989: Earp Lawrence M., « Machaut's Role in the Production of Manuscripts of His Works », *Journal of the American Musicological Society*, XLII (1989), p. 461-503.

EARP 1991-1: Earp Lawrence M., « Texting in 15th-Century French Chansons: A Look Ahead from the 14th Century », *Early Music*, XIX (1991), p. 195-210.

EARP 1991-2: Earp Lawrence M., « Lyrics for Reading and Lyrics for Singing in Late Medieval France: The Development of the Dance Lyric from Adam de la Halle to Guillaume de Machaut », in Rebecca A. Baltzer, Thomas Cable & James I. Wimsatt eds., *The Union of Words and Music in Medieval Poetry*, Austin, University of Texas Press, 1991, p. 101-131.

EARP 1995: Earp Lawrence M., *Guillaume de Machaut: A Guide to Research*, Garland Composer Resource Manuals, New York, Garland, 1995.

EARP 2005 : Earp Lawrence M., « Declamatory Dissonance in Machaut », in Suzannah Clark & Elizabeth Eva Leach eds., *Citation and Authority in Medieval and Renaissance Musical Culture: Learning from the Learned*, Studies in Medieval and Renaissance Music, Woodbridge, Boydell, 2005, p. 102-122.

EARP (forth.) : Earp Lawrence M., « Declamation as Expression in Machaut », in Jennifer Bain & Deborah McGrady eds., *A Companion to Guillaume de Machaut – An Interdisciplinary Approach to the Master*, Brill (forthcoming).

EVERIST 1981 : Everist Mark, « Music and Theory in Late Thirteenth-Century Paris: The Manuscript Paris, Bibliothèque Nationale, Fonds Lat. 11266 », *Royal Musical Association Research Chronicle*, XXVII (1981), p. 52-64.

EVERIST 2007: Everist Mark, « *Souspirant en terre estrange*: The Polyphonic Rondeau from Adam de la Halle to Guillaume de Machaut », *Early Music History*, XXVI (2007), p. 1-42.

GÜNTHER 1987: Günther Ursula, « Friedrich Ludwig in Göttingen », in Martin Stachelin ed., *Musikwissenschaft und Musikpflege an der Georg-August-Universität Göttingen: Beiträge zu ihrer Geschichte*, Göttingen, Vandenhoeck & Ruprecht, 1987, p. 152-175.

HAINES 2009 : Haines John, « The Origins of the Musical Staff », *Musical Quarterly*, XCI (2009), p. 327-378.

HAMM 1962 : Hamm Charles, « Manuscript Structure in the Dufay Era », *Acta musicologica*, XXXIV (1962), p. 166-184.

HOEPFFNER 1908 : Hoepffner Ernst ed., *Oeuvres de Guillaume de Machaut*, I, Paris, Firmin-Didot, 1908.

KEITEL 1976 : Keitel Elizabeth A., *A Chronology of the Compositions of Guillaume de Machaut Based on a Study of Fascicle-Manuscript Structure in the Larger Manuscripts*, Ph.D. diss., Cornell University, 1976.

KÜGLE 1997 : Kügle Karl, *The Manuscript Ivrea, Biblioteca Capitolare 115: Studies in the Transmission and Composition of Ars Nova Polyphony*, Musicological Studies, 69, Ottawa, Institute of Mediaeval Music, 1997.

LEACH 2002 : Leach Elizabeth Eva, « Death of a Lover and the Birth of the Polyphonic Ballade: Machaut's Notated Ballades 1-5 », *Journal of Musicology*, XIX (2002), p. 461-502.

LEACH 2010 : Leach Elizabeth Eva, « Guillaume de Machaut, Royal Almoner: *Honte, paour* (B 25) and *Donnez, signeurs* (B 26) in Context », *Early Music*, XXXVIII (2010), p. 21-42.

LUDWIG 1926 : Ludwig Friedrich ed., *Guillaume de Machaut: Musikalische Werke*, I, *Balladen, Rondeaux und Virelais*, Leipzig, Breitkopf & Härtel, 1926; repr. Leipzig and Wiesbaden, Breitkopf & Härtel, 1954.

McGRADY 2006 : McGrady Deborah, *Controlling Readers: Guillaume de Machaut and His Late Medieval Audience*, Toronto, University of Toronto Press, 2006.

MACHAUT 1982 : *Guillaume de Machaut: Poète et compositeur. Colloque-table ronde organisé par l'université de Reims (19-22 avril 1978)*, Actes et Colloques, 23, Paris, Klincksieck, 1982.

MOLL 2004 : Moll Kevin, « Folio Format and Musical Organisation in the Liturgical Repertoire of the Ivrea and Apt Codices », *Early Music History*, XXIII (2004), p. 85-152.

PLUMLEY & STONE 2008 : Plumley Yolanda & Stone Anne, *Codex Chantilly, Bibliothèque du Château de Chantilly, Ms. 564, Introduction & Fac-similé*, Centre d'Études supérieures de la Renaissance, Collection Építome musical, Turnhout, Brepols, 2008.

POMPILIO 1990 : Angelo Pompilio *et al.* eds., *Atti del XIV congresso della Società Internazionale di Musicologia: Trasmissione e recezione delle forme di cultura musicale. Bologna, 27 agosto-1° settembre 1987; Ferrara-Parma, 30 agosto 1987*, I : *Round Tables*, Turin, Edizioni di Torino, 1990.

PONSICH 2009 : Ponsich Claire, « Des lettres, le livre et les arts dans les relations vers 1388-1389 de Violant de Bar et de Gaston Fébus », in Valérie Fasseur ed., *Froissart à la cour de Béarn: l'écrivain, les arts et le pouvoir*, Texte, Codex & Contexte, 7, Turnhout, Brepols, 2009, p. 277-304.

POTTER 2001 : Potter, Pamela M., « Besseler, Heinrich », *The New Grove Dictionary of Music and Musicians*, Oxford and New York, Oxford University Press, 2001, III, p. 489-490.

ROBERTSON 2002 : Robertson Anne Walters, *Guillaume de Machaut at Reims: Context and Meaning in his Musical Works*, Cambridge, Cambridge University Press, 2002.

SCHRÄDE 1956-1 : Schrade Leo ed., *The Works of Guillaume de Machaut*, II, Polyphonic Music of the Fourteenth Century, 3, Monaco, L'Oiseau-Lyre, 1956.

SCHRÄDE 1956-2 : Schrade Leo, « Philippe de Vitry: Some New Discoveries », *Musical Quarterly*, XLII (1956), p. 330-354.

SCHRÄDE 1958: Schrade Leo, « Guillaume de Machaut and the *Roman de Fauvel* », in *Miscelánea en homenaje a Monseñor Higinio Anglés*, 2 vols., Barcelona, Consejo superior de investigaciones científicas, 1958-1961, vol. 2, p. 843-850.

SCHRÄDE 1959 : Schrade Leo, « The Chronology of the Ars nova in France », in *Les Colloques de Wégimont II, 1955. L'Ars Nova: Recueil d'études sur la musique du XIV^e siècle*, Bibliothèque de la Faculté de Philosophie et Lettres de l'université de Liège 149, Paris, Les Belles Lettres, 1959, p. 37-59.

STAHELIN 1990 : Staehelin Martin, « Mehrstimmige Repertoires im 14. und 15. Jahrhundert: Das Problem der verlorenen Quellen », in POMPILIO 1990, p. 153-159.

STROHM 1984 : Strohm Reinhard, « The *ars nova* Fragments of Ghent », *Tijdschrift van de Vereniging voor Nederlandse Muziekgeschiedenis*, XXXIV (1984), p. 109-131.

STROHM 1987 : Strohm Reinhard, « Round Table II: Constitution and Conservation of Polyphonic Repertoires in the 14th and 15th Centuries », *Acta musicologica*, LIX (1987), p. 10-13, reprinted as « Introduction », in POMPILIO 1990, p. 93-96.

15

The consequences of Ars Nova notation

Most of us learned notation from Willi Apel's textbook *The Notation of Polyphonic Music*.¹ Apel begins his course with white mensural notation (after having briefly discussed tablatures), and only later discusses modal notation and neumes. He does this for purely pedagogical reasons, since he is convinced that mensural notation is easier to learn than all earlier systems because it is closely related to our modern notational system. This is undoubtedly true from a twentieth-century perspective. And yet, a late medieval musician was likely to experience mensural notation differently: for him, mensural notation was probably more difficult than the notational systems that preceded it.

Table 1. Differences between mensural notation and non-diastematic neumes

| Non-Diastematic Neumes | Mensural Notation |
|---|---|
| 1. No precise pitch | 1. Precise pitch |
| 2. No precise rhythm | 2. Precise rhythm |
| 3. Reminded one of music previously memorized | 3. Allowed one to sing a piece of music without prior knowledge of it |
| 4. Easy to learn | 4. Required special training |
| 5. One could not send a manuscript from one place to another without an interpreter | 5. Allowed transmission of manuscripts to distant places without interpreters |

For a comparison of mensural notation and non-diastematic neumes, see Table 1. Let us recall a basic rule of all notational systems: the less is notated, the more is sung from memory or settled in rehearsals by performers. The first two points in Table 1 are obvious: mensural notation specifies not only pitch, but also rhythm, while neumatic notation is vague about both. This means that neumes can only remind one of something one already knows, while mensural notation allows one to learn an entire polyphonic composition from a manuscript without ever having heard it before. In other words, one can take a manuscript from Paris to Florence and expect the singers in Florence to perform the music correctly without an interpreter.

1. APEL 1949.

The second point, the development of an unambiguous notational system that enabled a wide variety of rhythms to be represented in writing, had far-reaching consequences. It required special training to learn how to read or write using mensural notation. Not every composer in the fourteenth century was literate. To give one particularly striking example, the last great early fifteenth-century Minnesinger, Oswald von Wolkenstein, had almost certainly not mastered mensural notation and was unlikely to have learned how to read and write.² Instead, he employed a scribe, whom he mentions in his poetry. Thus, mensural notation was from the very beginning associated with university circles. When it was developed in the early fourteenth century, there followed a virtual explosion of music theory treatises whose goal was to teach a select group of students the mastery of this new system.³

So what were the main innovations of Ars Nova notation? The new system was described in a number of treatises in the early fourteenth century. Philippe de Vitry was regularly mentioned as the inventor of the system.⁴ Aside from de Vitry, the most influential theorist to illustrate the new system was Johannes de Muris in his two treatises, *Notitia artis musicae* and the *Libellus*; the latter remains the most important textbook on notation in Europe until the sixteenth century.⁵ De Muris begins the *Libellus* with a presentation of the five basic note values: maxima, long, breve, semibreve, and minim.⁶ With the exception of the minim all can be divided into two or three parts. Next, de Muris defines the terms *modus* (the mensuration of the long into three breves, that is, perfect mode, or two breves, that is, imperfect mode), *tempus* or the mensuration of the breve (the perfect time has three semibreves, the imperfect time has two), and *prolation*, the mensuration of the semibreve (major prolation has three minims, minor prolation has two). He includes signs which indicate the intended mensuration. (These signs would remain in use through the sixteenth century, with one exception: starting in the early fifteenth century, composers and theorists would use one dot to indicate major prolation, with the absence of a dot signaling minor prolation.) Johannes continues with the familiar rules for imperfection and alteration of perfect mensurations and the use of the *punctus divisionis*.

Johannes also provides the first discussion of diminution in the *Libellus*, where he recommends substitution of the next-smaller note value in the mensuration that is being replaced.⁷ Similarly, he provides a definition of *color* and *talea*; only the former had been discussed before this, by the Dutch music theorist Johannes Boen.⁸ All these subjects concern the isorhythmic motet, the first genre that could not have been composed without writing or visualizing the music. A composer could not possibly prescribe the intended rhythmic and melodic manipulations such as diminution, augmentation, inversion, and mirroring, without visualizing the notes or writing them down. Thus, the invention of a system of rhythmic notation resulted in musical compositions that could not have been created without precise notation. It is therefore not surprising that the early fourteenth-century

2. See, in particular, TIMM 1974; JONES 1973, p. 135-39; Reinhard Strohm also has an excellent discussion of how Oswald would have gone about composing his pieces in STROHM 1993, p. 119-124.

3. On the subject of musical literacy in the fifteenth century, see also WEGMAN 1996.

4. PHILIPPE DE VITRY 1964. See FULLER 1985. Fuller suggests that the treatise derives from lectures of Vitry and was written down by his students.

5. JOHANNES DE MURIS 1972; JOHANNES DE MURIS 1999.

6. Many of the versions of the *Libellus* are available in the TML, <http://www.chmtd.indiana.edu/tml/14th/14TH_INDEX.html>, accessed 21 January 2010.

7. JOHANNES DE MURIS 1999.

8. See n. 24 below.

theorist Jacques de Liège, who opposed the introduction of binary mensurations introduced by the *Ars Nova*, complained that modern musicians were much too obsessed with *notation* or *writing*: they should be called 'writers of notes and text rather than singers', he said.⁹

To return to our main question: what were the results of this new notational system? I have mentioned earlier when less is notated, more is improvised, sung from memory or settled in rehearsals. In the fourteenth century, composers wrote a wide variety of pieces. For some, like the early Trecento repertoire or fourteenth-century song-motets by Dunstable or Fry, the surviving versions vary considerably, and it seems likely that the performer changed the musical text significantly each time it was performed. Others, such as the isorhythmic motets of de Vitry or Machaut, had to be performed as written. The importance of this fact cannot be overstated. The latter comprise the first repertoire in Western music conceived in writing and meant to be not only performed and heard, but also studied. If a performer replaced even two semibreves with a breve or added a flourish at the beginning or end, the entire isorhythmic structure collapsed. Thus, the only details left to the performer were *tempo* and *musica ficta*.¹⁰

The reality of a final text for musical pieces has far-reaching consequences. First, if every detail of a piece is fixed in writing, a composer takes pride in authorship. As a result, the composer is now generally identified. Machaut goes so far as to supervise the copying of his music and instructs his friend Peronne to perform a piece 'as written', which must mean that many times it was not.¹¹ Theorists now regularly discuss specific pieces attributed to particular composers that they must not only have heard, but also *studied* in *writing*. The pride in musical authorship is found in all types of fourteenth-century genres, and it seems likely that it must have come about as a result of the ability to transmit a musical text intact, even if it did not always happen that way.

The second consequence of *Ars Nova* notation is that manuscripts could now be sent all over Europe without musical interpreters. (By comparison, neumes and, to a large extent, *Notre Dame* polyphony, needed an interpreter to teach the music notated on the manuscript.) Anyone who knew how to read mensural notation could perform the music correctly.¹² Thus, as Reinhard Strohm has shown, pieces were sent from Bruges to Lucca regularly, in particular the famous Lucca Choirbook, which was probably brought by the merchant Giovanni Arnolfini from Bruges to Lucca.¹³ Pieces by numerous composers from the fourteenth and fifteenth centuries found their way into Polish sources, and English music was sent to the continent.¹⁴ Thus, musical compositions could survive independently from a performer who was familiar with the piece or the composer who did not need to be present at the performance.

What were the consequences of *Ars Nova* notation on the music itself? The central question is, of course, whether an unambiguous notational system resulted in the

9. JACQUES DE LIÈGE 1973, p. 95.

10. See also BUSSE BERGER 2005, chapter 6.

11. Machaut writes to Peronne: 'And I beg you to be willing to hear and learn the piece exactly as it has been written without taking away any part, and it is intended to be recited with quite a long measure.' (*Si vous suppli que vous le daigniez oir et savoir la chose einsi comme elle est faite sans mettre ne oster et se wet dire de bien longue mesure.*) See MACHAUT 1998, p. 124-25. See also Heinrich Besseler's discussion of this letter in BESSELER 1961, p. 62.

12. STROHM 1993, p. 75, 591.

13. STROHM 2008, p. 34.

14. See, in particular, STROHM 1993, p. 115 and 260f; see also STROHM 1984, p. 209-211. For English Music in France, see WATHEY 1986.

exploration of new techniques and the development of new genres that would not have been possible with earlier systems. There is a large literature that explores the general effect of writing on culture, starting with Eric Havelock's 1963 book *Preface to Plato* which addresses the possible impact of writing on the development of Greek philosophy.¹⁵ His central thesis is bold and highly intriguing: he suggests that the invention of writing freed the mind to develop Greek philosophy. While many of Havelock's ideas have been challenged, there is little doubt that he opened up a whole new way of thinking.¹⁶ However, it will come as a surprise to many that the same kind of issues were discussed even earlier in musicology: Heinrich Besseler and Peter Gülke were the first to investigate the consequences of notation in their fundamental essay *Das Schriftbild der mehrstimmigen Musik* from 1961.¹⁷ They argued, quite similarly to the classicist Eric Havelock, that an unambiguous notational system had freed the forces of creativity, resulting in what they called *Entlastung der Köpfe*. As a result of notation, they argued, singers no longer needed to memorize chant and were thus free to conceive complicated polyphonic structures.

My recent research, along with that of Mary Carruthers and Craig Wright, has shown that the last contention of Besseler and Gülke is not correct.¹⁸ Even after the invention of an unambiguous notational system, texts were memorized, but they were memorized in a new way: the written page was now used as a mnemonic aid. Once something was written down, one would always visualize the page when performing the piece. Nevertheless, Besseler and Gülke were on to something important even if they did not work it out fully. In his 1987 book, *The Interface Between the Written and the Oral*, the anthropologist Jack Goody suggests that we replace the distinction between oral and literate culture with a distinction between oral culture, on the one hand, and oral plus written and printed culture on the other.¹⁹ The adjustment Goody proposes might seem minor, but it helps us to move away from the idea that once writing is invented, all features of an oral culture rapidly disappear. It allows us, instead, to see in the musical culture of the Middle Ages a rich and complex interplay of oral and literate features. For me, Goody's discussion of the effects of writing on early literate societies is of particular interest: once one sees something written down, one is able to analyze it, to compare texts. Writing results in the making of lists and catalogues, the hierarchical classification of objects. This implies that writing makes possible new and different kinds of texts, such as word and number games that are unimaginable without writing. Last, but not least, the study of grammar would be impossible without writing. Only when one sees a text written before one's eyes can one reflect upon such things as syntax, upon incorrect and correct word order, and begin comparing oral and written language.

I believe that we can observe the phenomena described by Goody in fourteenth-century French motets.²⁰ To begin with, there is little doubt that they were studied in writing. How else could Johannes Boen give the following explanation of isorhythm in his *Ars (musicae)* from the middle of the fourteenth century? Boen here summarizes the isorhythmic structure of one motet by Philippe de Vitry as thirty divided by five times six, and another de Vitry motet as sixty divided by three times twenty.²¹

15. HAVELOCK 1963.

16. For an excellent overview of the field, see JAHANDARIE 1999.

17. BESELER 1961.

18. WRIGHT 1989, p. 325-29, 333-34; CARRUTHERS 1990 and 1998; BUSSE BERGER 2005.

19. GOODY 1987. The book is the culmination of many articles on the subject, starting with GOODY & WATT 1963.

20. See, in particular, BUSSE BERGER 2005, chapter 6.

21. BOEN 1972, p. 29.

*Et sic consequenter erit cantus ille colore iunctus. Isto modo fuit color factus in tenore Virtutibus.²² Cepit enim primo triginta corpora que divisit in partes quinque, quarum partium quelibet alteri similatur, quia post sex notas incipit septima que similis est nota prime, item post duodecimam incipit tertiadecima que prime et septime similatur, et sic ulterius. Sed quia nimis brevis mansisset tenor si solis triginta corporibus fuisse usus, ergo adiunxit et alia triginta que medietatem faciunt aliorum et servatur in ipsis idem color qui prius. Sic in tenore *Flos virginum*²³ actor non contentus numero tricenario, ipsum numerum duplicavit ad corpora sexaginta. Sexagenarium autem numerum secuit in partes tres, et obtinuit quelibet pars notas viginti. Primas ergo viginti bene sic disposuit, quod consimilis dispositionis pulchrum colorem in sequentibus duabus partibus conservavit.²⁴*

This structure is something which can only be *seen* at a glance in mensural rather than modern notation; it is difficult to hear it.

Secondly, as I have shown earlier, composers experimented with their new literacy by using retrograde motion, diminution and augmentation. An especially famous example of retrograde is Machaut's rondeau *Ma fin est mon commencement*, but there are numerous other examples.²⁵ Similarly, the use of rhythmic games involving mensuration signs and new note shapes might have been a result of the new notational system.²⁶

Thirdly, Goody's theory that writing results in classifications and lists allows us to also see the development of counterpoint in a new light. For all of us who learned counterpoint according to strict rules derived either from scholars of the nineteenth-century Palestrina revival or from Knud Jeppesen's textbook, it will come as a surprise that the approach to learning counterpoint in the Middle Ages and Renaissance was based on memorization and emulation rather than abstract rules.²⁷ From the fourteenth century on, instruction for learning how to sing polyphony consisted of two elements. The first of these can be summarized as note-against-note counterpoint; it began with the memorization of all consonances and dissonances, usually by means of consonance tables.²⁸ This was followed by the memorization of all permissible interval progressions. At this stage only consonant intervals were allowed. One began by memorizing two-note progressions, then perhaps

22. The motet Boen is discussing is *Impudenter circumvivi/ Virtutibus laudabilis* by Philippe de Vitry which has a *tenor* consisting of thirty notes divided in five *taleae* of six notes each, followed by the *color* repeated in diminution. See SCHRADE 1984, no. 11.

23. The motet Boen has in mind is *Apta caro/ Flos virginum/ Alma redemptoris mater*, GÜNTHER 1965, no. 3. This motet has a more complicated construction: the *color* consists of thirty notes and is repeated, but the sixty notes are divided into three *taleae*; in other words, *color* and *talea* overlap.

24. 'And as a result the music will be unified through this color. In this way color was made in the tenor *Virtutibus*. Namely, first a group of thirty notes divides into five parts, of which every part is similar to the other, because after six notes the seventh is similar to the first; in the same way after the twelfth begins the thirteenth as the first was similar to the seventh and so on. But since the tenor would be still too short if only thirty notes had been used, it is joined with another thirty which would make one-half of the length of the others and it is presented in the same color as before. Thus, in the tenor *Flos virginum* the composer is not content with the number thirty; he has doubled the same number to sixty notes. The number sixty he has also cut into three parts and has obtained from every part twenty notes. He has arranged the first twenty well and by an identical arrangement preserved beautiful color in the succeeding two parts'. BOEN 1972, p. 29. I would like to thank Leofranc Holford-Strevens for help with the translation of the last sentence.

25. For an excellent discussion of the issue, see NEWES 1990.

26. See STONE 2001. See also BUSSE BERGER 2005, p. 234-251.

27. Probably the most famous textbook from the Berlin Palestrina Revival is BELLERMANN 1862. For a more detailed discussion of the Berlin Palestrina movement, see BUSSE BERGER 2005, chapter 1; JEPPESEN 1922; JEPPESEN 1930.

28. See BUSSE BERGER 2005, chapter 4.

three-note progressions, and so on. The treatises are extremely tedious to read, because the theorists insist on giving the correct interval progression for every single interval, sometimes even on every step of the gamut, obviously because this was the best way to commit them to memory. Even though they often call these progressions *regulae*, these are not rules in the modern sense, but merely instructions on how to get from one interval to another. They are really not different from the memorization of Latin nouns to which schoolboys were subjugated – nouns that would be combined first with an adjective, then with a verb, and declined and conjugated in every possible way.

It cannot be stressed enough that the memorization of these interval progressions was considered the central element of learning counterpoint. In fact, there were many theorists, especially in Italy, who devoted their entire treatise exclusively to this topic, without even bothering with diminished counterpoint. Moreover, the memorization of note-against-note progressions was mainly done orally; it did not require writing. Once these progressions had been committed to memory, composers could work out pieces in their minds.²⁹ This is an excellent example of what Goody would call 'oral activities' in a written society. Just as we have memorized multiplication tables based on writing and as a result can perform complicated mental arithmetic without writing, medieval composers could plan compositions in note-against-note counterpoint in their mind because they had memorized countless interval progressions.

Fourthly, Goody has argued that writing results in the study of grammar, an analysis of the rules of the language. For music, the closest equivalent is probably diminished counterpoint, where one can expect to find a detailed system of rules by which the parts of music are formed and put together. In contrast to our medieval ancestors, we today consider this the most interesting and important part of counterpoint instruction. A motet by Guillaume de Machaut sounds very different from one by Josquin, and we expect to find an explanation for these differences not in the use of consonant interval progressions, but in instructional manuals for dissonant *contrapunctus diminutus*. It is therefore particularly disappointing that the vast majority of fourteenth-, fifteenth- and even sixteenth-century music theorists have very little or nothing to say on this subject, even after the invention of mensural notation.³⁰

What would instruction for written diminished counterpoint have to be? First, it would obviously require the use of mensural notation, and would provide musical examples of how dissonances could be used. It would not be enough to say that one should fill out an interval with shorter note-values. Rather, there would have to be an understanding that the length of dissonances should differ from, say, major to minor prolongation. Such instruction would also include theorists who do not give any examples, but formulate their rules in such a way that there is little doubt that they conceptualize dissonance usage in notational terms. Second, the text accompanying the examples would have to clearly explain how long a dissonant tone should last, as well as how it should be introduced and then resolved. A discussion of the length of the dissonant note value, in turn, would require that it be related to the mensuration under which it occurs. In other words, the length of the permitted dissonance would depend on the length of the regularly recurring *mensura* (later called *tactus* or *battuta*). For example, in major prolongation with a *mensura* on the *minim*, the dissonance rules might be different from those in diminished *tempus* with a *mensura* on the *breve*.

29. BUSSE BERGER 2005, p. 198-210.

30. See BUSSE BERGER 2009.

(Pp. 36) 1. O

(p. 37) 2.

3.

4.

(p. 38) 5.

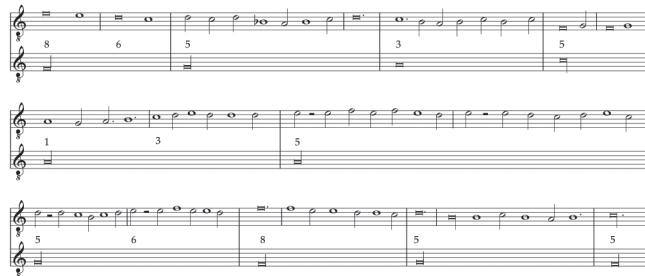
6.

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8.

Tenor

Example 1. Diminished Counterpoint from *Cum notum sit. De diminutione contrapuncti*, edited in SACHS 1974, p. 146.



Example 2. Petrus dictus Palma ociosa, counterpoint examples from *Compendium de discantu mensurabili*, in WOLF 1913, example 37, p. 520-21.

The two earliest treatises to ‘discuss’ diminished counterpoint are *Cum notum sit* (always combined with *De diminutione contrapuncti*), sometimes attributed to Johannes de Muris (see ex. 1), and a text by the French Cistercian Petrus dictus Palma ociosa (1336; see ex. 2).³¹ Both texts seem to be aware of the fact that different mensurations require different dissonant note lengths, because the central part of both includes examples in various mensurations demonstrating how to embellish the note-against-note framework through shorter note-values, a step that follows the creation of the note-against-note foundation consisting only of consonances. While the examples in *Cum notum sit* are nothing more than repetitive ornamentations, Petrus’ could derive from an Ars Nova motet by de Vitry. It is striking that both include numerous hidden parallel fifths and octaves. Neither theorist gives any rules concerning dissonance length. Yet, the very fact that both distinguish between different mensurations, and that the length of the dissonant notes differ in these examples, suggest that they associated diminished counterpoint with writing.

The next theorist to discuss diminished counterpoint is Goscalchus, whose treatise is dated 1375.³² It is important that Goscalchus introduces and explains mensural notation in the counterpoint section and not in a separate chapter on notation, for the simple reason that he cannot explain diminished counterpoint without reference to notation. (He even states explicitly that diminished counterpoint can only occur in music that uses mensural notation.) Moreover, Goscalchus is the first to formulate a rule that prohibits parallel fifths and octaves in diminished counterpoint. Dissonant notes are allowed as long as the greater part or half of the note is consonant; perfections can begin and end with a dissonant tone, as long as this dissonant tone will be less than half the value of the entire perfection. We have here something very close to rules in the modern sense that can be applied to a variety of situations. And Goscalchus was able to formulate these rules, because he studied *written* music. Otherwise he would not have been so insistent to include his discussion within an explanation of Ars Nova notation. The most important fifteenth-century theorist and the only one who fully relates the length and placement of

31. For the sources of *Cum notum sit* see SACHS 1974, p. 81-82. Petrus has been edited by WOLF 1913. For two excellent discussions of the text, see LEECH-WILKINSON 1993 and Sarah Fuller’s recent summary of her earlier writings on the subject (FULLER 2002).

32. The text is usually called the Berkeley Manuscript because the most important source is Berkeley, University of California at Berkeley, Music Library, ms. 744. See ELLSWORTH 1984; see also Bonnie J. Blackburn’s discussion of Goscalchus in her article (BLACKBURN 1987, p. 236).

the dissonant note to what he calls the *mensurae directio* of the mensuration sign is Johannes Tinctoris (1472–75).³³ He places the *mensurae directio* in major prolation on the minim, in minor on the semibreve, and in duple proportion or *tempus diminutum* on the breve. The basic rule is that dissonances cannot last longer than one-half of the *mensura directio*. Then, there are three additional rules. First, if there is a dissonance at the beginning of the *mensura directio*, a dissonance of the same or smaller value can follow or be left as a passing tone or lower or upper neighbor. Second, ‘where there is a penultimate note equal in value to two *mensurae directio*, consisting either of a single note or two notes identical in pitch and length, the first part of the first *mensura* nearly always has a dissonance set against it. Third, if the penultimate is equal in value to one *mensurae directio*, then the first part can be dissonant, or when preceded by stepwise descending notes of equal value, the first part of each note can be dissonant’.³⁴

Tinctoris repeats these rules for all the mensurations he discusses. The important point is that he could arrive at these rules because he was analyzing *written* compositions. In the introduction to his counterpoint textbook in which he studies pieces by Ockeghem, Regis, Busnoys, Caron, Faugues, Dunstable, Binchois, and Dufay, he writes: ‘I never study them without coming away more cheerful and with a better understanding of the art.’³⁵

It is striking that all of the references to diminished counterpoint occur in French treatises, while fourteenth- and fifteenth-century Italian theorists – Paolo da Firenze, Prosdocimus, Ugolino, Ramis (Spanish, but active in Italy) and Burtius – concentrate only on note-against-note counterpoint.³⁶ Moreover, virtually all music theorists discussing diminished counterpoint associated it with *Ars Nova* notation. In other words, they needed the mensural system with clearly differentiated note-lengths to conceptualize dissonances. The fact that it took theorists over 150 years to develop detailed rules does not change the fact that there was a clear awareness from the very beginning that length of dissonance depended on the mensuration sign used.

In this essay, I have argued that the invention of mensural notation fundamentally transformed music from an oral to an oral-cum-written tradition. Mensural notation allowed pieces to be transmitted intact; as a result, composers took pride in their authorship. They experimented with rhythmic and melodic manipulations of various kinds. Most importantly, mensural notation resulted in the invention of both note-against-note and diminished counterpoint. While note-against-note counterpoint allowed for memorization of interval progressions and permitted composers to work out pieces in the mind, the analysis of a *written* score was the central element that allowed the gradual formulation of counterpoint rules governing diminished counterpoint. These rules could not have been formulated in an oral culture.

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33. TINCTORIS 1961, p. 156. See also SACHS 1974, p. 148ff and BLACKBURN 1987, p. 235–236.

34. Klaus-Jürgen SACHS, ‘Counterpoint,’ *New Grove Online*, accessed 21 January 2010.

35. Translation in HOLFORD-STREVENS 1996.

36. See also BUSSE BERGER 2007.

BIBLIOGRAPHY

APEL 1949 : Apel Willi, *The Notation of Polyphonic Music, 900-1600*, Cambridge, Mass., Mediæval Academy of America, 1949.

BELLERMANN 1862 : Bellermann Heinrich, *Der Contrapunct oder Anleitung zur Stimmführung in der musikalischen Composition*, Berlin, Springer, 1862.

BESSELER 1961 : Besseler Heinrich & Gölke Peter, *Musikgeschichte in Bildern*, Leipzig, VEB Deutscher Verlag für Musik, 1961, III: *Musik des Mittelalters und der Renaissance*.

BLACKBURN 1987 : Blackburn Bonnie J., « On Compositional Process in the Fifteenth Century », *JAMS*, XL (1987), p. 210-84.

BOEN 1972 : *Ars (musicae)*, ed. by F. Alberto Gallo, *Corpus Scriptorum de Musica* vol. 19, n.p., American Institute of Musicology, 1972.

BUSSE BERGER 2005 : Busse Berger Anna Maria, *Medieval Music and the Art of Memory*, Berkeley, University of California Press, 2005.

BUSSE BERGER 2007 : Busse Berger Anna Maria, « Compositional Practices in Trecento Music: Model Books and Musical Traditions », in Melania Bucciarelli & Berta Joncus eds., *Music as Social and Cultural Practice: Essays in Honour of Reinhard Strohm*, Woodbridge, Suffolk, Boydell & Brewer, 2007, p. 24-37.

BUSSE BERGER 2009 : Busse Berger Anna Maria, « The Problem of Diminished Counterpoint », in Jennifer Bloxam, Gioia Filocamo & Herbert Kellman eds., *'Uno gentile et subtile ingenio': Studies in Renaissance Music in Honour of Bonnie Blackburn*, Turnhout, Brepols, 2009, p. 13-27.

CARRUTHERS 1990 : Carruthers Mary, *The Book of Memory: A Study in Medieval Culture*, Cambridge, Cambridge University Press, 1990.

CARRUTHERS 1998 : Carruthers Mary, *The Craft of Thought: Meditation, Rhetoric, and the Making of Images, 400-1200*, Cambridge, Cambridge University Press, 1998.

ELLSWORTH 1984 : *The Berkeley Manuscript: University of California Music Library, ms. 744 (olim Phillipps 4450)*, Oliver B. Ellsworth. ed, Lincoln, University of Nebraska Press, 1984.

FULLER 1985 : Fuller Sarah, « A Phantom Treatise of the Fourteenth Century? The *Ars Nova* », *Journal of Musicology*, VI (1985), p. 23-50.

FULLER 2002 : Fuller Sarah, « *Organum-discantus-contrapunctus* in the Middle Ages », in Thomas Christensen ed., *The Cambridge History of Western Music Theory*, Cambridge, Cambridge University Press, 2002, p. 477-502.

GOODY & WATT 1963 : Goody Jack & Watt Ian, « The Consequences of Literacy », *Comparative Studies in Society and History*, V (1963), p. 304-345.

GOODY 1987 : Goody Jack, *The Interface Between the Written and the Oral*, Cambridge, Cambridge University Press, 1987.

GÜNTHER 1965 : *The Motets of the Manuscripts Chantilly, musée Condé, 564 (olim 1047) and Modena, Biblioteca Estense, a.M. 5, 24 (olim lat. 568)*, Ursula Günther ed., *Corpus Scriptorum de Musica* vol. 39, n.p., American Institute of Musicology, 1965.

HAVELOCK 1963 : Havelock Eric A., *Preface to Plato*, Cambridge, Harvard University Press, 1963.

HOLFORD-STREVENS 1996 : Holford-Strevens Leofranc, « Tinctoris on the Great Composers », *Plain Song and Medieval Music*, V (1996), p. 193-199.

JACQUES DE LIÈGE 1973 : *Speculum musicae*, ed. by Roger Bragard, *Corpus Scriptorum de Musica* vol. 3, Rome, American Institute of Musicology, 1973.

JAHANDARIE 1999 : Jahandarie Khosrow, *Spoken and Written Discourse: A Multi-disciplinary Perspective*, Stamford, Conn., Ablex, 1999.

JEPPESEN 1922 : Jeppesen Knud, *Die Dissonanzbehandlung bei Palestrina*, Ph.D diss., University of Vienna, 1922, translated by Margaret W. Hamerik as *The Style of Palestrina and the Dissonance*, Copenhagen, Levin & Munksgaard, 1927.

JEPPESSEN 1930 : Jeppesen Knud, *Kontrapunkt*, Copenhagen and Leipzig, W. Hansen, 1930, translated by Glen Haydon, *Counterpoint: The Polyphonic Vocal Style of the Sixteenth Century*, New York, Prentice-Hall, 1939.

JOHANNES DE MURIS 1972 : *Notitia artis musicae*, ed. by Ulrich Michels, Corpus Scriptorum de Musica vol. 17, Dallas, American Institute of Musicology, 1972.

JOHANNES DE MURIS 1999 : *Libellus cantus mensurabilis*, ed. by Christian Berkolt, *Ars practica mensurabilis cantus secundum Johannem de Muris. Die Recensio maior des sogenannten Libellus practice cantus mensurabilis*, Munich, Verlag der Bayerischen Akademie der Wissenschaften, 1999.

JONES 1973 : Jones George F., *Oswald von Wolkenstein*, New York, Twayne Publishers, 1973.

JAHANDARIE, Khosrow, *Spoken and Written Discourse: A Multi-disciplinary Perspective* (Stamford, Conn.: Ablex, 1999)

LEECH-WILKINSON 1993 : Leech-Wilkinson Daniel, « Written and Improvised Polyphony », in Christian Meyer ed., *Polyphonie de tradition orale: histoire et traditions vivantes*, Actes du Colloque de Royaumont, Paris, Créaphis, 1993, p. 172-182.

MACHAUT 1998 : *Guillaume de Machaut, Le Livre dou Voir Dit: The Book of True Poem*, ed. by Daniel Leech Wilkinson and trans. by R. Barton Palmer, New York, Garland, 1998.

NEWES 1990 : Newes Virginia, « Writing, Reading, and Memorizing: The Transmission and Resolution of Retrograde Canons from the Fourteenth and Early Fifteenth Centuries », *Early Music*, XVIII (1990), p. 218-232.

PHILIPPE DE VITRY 1964 : *Ars nova*, ed. by Gilbert Reaney, André Gilles & Jean Maillard, Corpus Scriptorum de Musica, vol. 8, n.p., American Institute of Musicology, 1964.

SACHS 1974 : Sachs Klaus-Jürgen, *Der Contrapunctus im 14. und 15. Jahrhundert: Untersuchungen zum Terminus, zur Lehre und zu den Quellen*, Wiesbaden, Franz Steiner, 1974.

SCHRÄDE 1984 : Philippe de Vitry, *Complete Works*, ed. by Leo Schrade, Monaco, Éditions de l'Oiseau-lyre, 1984.

STONE 2001 : Stone Anne, « A Singer at the Fountain: Homage and Irony in Ciconia's *Sus une fontayne* », *Music and Letters*, LXXXIII (2001), p. 361-390

STROHM 1984 : Strohm Reinhard, « Native and Foreign Polyphony », *Musica Disciplina*, XXXVIII (1984), p. 205-30.

STROHM 1993 : Strohm Reinhard, *The Rise of European Music, 1380-1500*, Cambridge, Cambridge University Press, 1993.

STROHM 2008 : *The Lucca Choirbook*, Reinhard Strohm ed., Chicago, University of Chicago Press, 2008.

TIMM 1974 : Timm Erika, « Wo hat Oswald von Wolkenstein das Komponieren gelernt ? » in Egon Kühebacher ed., *Oswald von Wolkenstein, Beiträge der philologisch-musikwissenschaftlichen Tagung in Neustift bei Brixen, 1973*, Innsbruck, Institut für Deutsche Philologie der Universität Innsbruck, 1974, p. 308-331.

TINCTORIS 1961 : Tinctoris Johannes, *The Art of Counterpoint (Liber de arte contrapuncti)*, Albert Seay trans. and ed., Musicological Studies and Documents vol. 5, n.p., American Institute of Musicology, 1961.

WATHEY 1986 : Wathey Andrew, « Dunstable in France », *Music and Letters*, 66 (1986), p. 1-36.

WEGMAN 1996 : Wegman Rob, « From Maker to Composer: Improvisation and Musical Authorship in the Low Countries », *JAMS*, 49 (1996), p. 409-79.

WOLF 1913 : Wolf Johannes, « Ein Beitrag zur Diskantlehre des 14. Jahrhunderts », *Sammelbände der internationalen Musikgesellschaft*, XV (1913), p. 504-534.

WRIGHT 1989 : Wright Craig, *Music and Ceremony at Notre-Dame of Paris, 500-1500*, Cambridge, Cambridge University Press, 1989.

16

The meeting of chant and polyphony in monophonic square notation from Cambrai Cathedral 1250-1550

Between 784 and 791, while Charlemagne was codifying the educational reforms that would lead to the Carolingian Renaissance, Pope Hadrian (772-795) sent the King a sacramentary, of which a copy was given to Hildoard, Bishop of Cambrai from 790 to 816, some thirty years later.¹ This manuscript, Cambrai, Médiathèque Municipale (hereafter CA), 164, is the earliest surviving service book from the library of the Cathedral and the first witness to what would become a distinctive liturgy and repertory of chant that would endure for centuries, past the Council of Trent, and even until the French Revolution, without any major reforms.²

Of particular consequence in that long history was the construction in Cambrai of the new church in Gothic style in the first half of the thirteenth century, because from that time onwards, both chant and polyphony were composed, sung, and written down in Cathedral manuscripts, and included works by the notable composers Nicolas Grenon, Guillaume Dufay, Johannes Tinctoris, Jacob Obrecht, Alexander Agricola, Jean Courtois, Josquin des Prez, Johannes Lupi, Philippe de Monte, and Jacobus de Kerle.³ So it cannot surprise that Liane Curtis, in her dissertation of 1991, found paleographic support, as well as abundant archival evidence, that a single scribe, Simon Mellet, was copying both chant and polyphony at Cambrai Cathedral, a conclusion that contradicted the evidence from other churches for a division of labor between scribes of polyphony and of chant.⁴

1. On CA 164, dated c. 811/812 by BISCHOFF 1998, p. 169-170, no. 774, and dated 812/813, in MUZERELLE 2000, p. 33, plates 4 and 6. See also GAMBER 1968, I, p. 339-40, no. 720, and PÉRIN & FEFFER 1985, p. 121, no. 18. CA 164 includes Sts. Géry and Aubert, two saintly bishops of Cambrai, and other saints from the region in litanies on fols. 222^r-225^r (MUZERELLE 2000, p. 34).

2. See HAUTCOEUR 1881.

3. On Peter of Cambrai, who composed *neumas* for the office of St. Elizabeth of Hungary and *conductus* [sic], see HAGGH 1995-1, p. XIV, n. 14. On the fourteenth-century fragments of polyphonic music in Cambrai, see FALLOWS 1976, and LERCH 1987. On the composition of chant in Cambrai, see HAGGH 1990; 1993; 2004 and 2008. A list of all notated manuscripts in the Médiathèque Municipale of Cambrai, including many written at the Cathedral, as well as a list of available reproductions, can be found at <<http://www.univ-nancy2.fr/MOYENAGE/UREEF/MUSICOLOGIE/CMN/indexcmn.htm>>. A number of these are described in BOUCKAERT 2007 which includes many color plates.

4. See CURTIS 1991 and 1999. Payments to scribes in Brussels are either for polyphony or for chant, not for both: see HAGGH 1988, p. 462-474; 1995; 2001.

In this study, the square notation of the chant in four service books associated with Cambrai Cathedral will be examined, the three manuscripts, CA 38, 11, and 12, and the printed antiphoner of the diocese of Cambrai, CA Impr. XVI C 4.⁵ The notation of the three manuscripts, but not the print of the latter book, allows us to witness the meeting of chant and polyphony in their notation, from which we can deduce the likely musical training of the notators. CA 38, the earliest source, is an antiphoner of disputed thirteenth-century date whose significance at the Cathedral is documented, but whose origin is unknown. CA 11 is a fifteenth-century choirbook filled mostly with polyphony and also with some monophony, which was copied by Simon Mellet, according to Liane Curtis. CA 12 is a sixteenth-century gradual prepared for the bishop of Cambrai. Following chronological order, CA 38 will be examined first, then CA 11, and finally, the notation of the printed antiphoner will be compared with that of CA 12.

The production of CA 38 may well have been one consequence of the construction of Cambrai's new Gothic cathedral in the thirteenth century. The most direct evidence we have of this now-destroyed edifice is the sketch of its choir in the notebook of Villard de Honnecourt from the second quarter of the thirteenth century.⁶ According to later chronicles, the heart of St. Elizabeth of Hungary, a benefactor, was kept in this choir.⁷ CA 38, a choir antiphoner,⁸ contains the two earliest known offices, with chant, for St. Elizabeth.⁹

The importance of St. Elizabeth of Hungary's canonization in 1235 and of the elevation of her relics in 1236 for the dating of several manuscripts from Cambrai Cathedral was recognized by Denis Muzerelle. In his recent catalogue of the *Manuscrits datés* at Cambrai, he grouped ten service books together (including CA 38), to which he assigned a *terminus post quem* or *terminus ante quem*, depending on the absence or presence of texts or music for St. Elizabeth.¹⁰ He assumed, reasonably enough, that her office was introduced at Cambrai Cathedral soon after her canonization.¹¹ Indeed, in my edition of the two earliest offices for St. Elizabeth of Hungary, I argued, using an entry in a chronicle from the Abbey of Afflighem, that the earlier of the two offices in CA 38, *Gaudeat Hungaria*, was composed by a composer from Cambrai, a certain Peter of Cambrai from the Augustinian Abbey of St. Aubert in Cambrai, who set poetic texts by Gerard of St. Quentin-en-Isle; Gerard took the offices for St. Francis of Assisi and St. Anthony of Padua as his models.¹²

5. The manuscripts are described in MOLINIER 1891; MUZERELLE 2000 and BOUCKAERT 2007.

6. Paris, Bibliothèque nationale de France (hereafter BnF), Ms. lat. 19093, fol. 14^v, where the text accompanying the sketch reads: *Voici le plan du chevet de Notre-Dame Sainte-Marie de Cambrai, ainsi comme il sort de terre. Plus avant dans ce livre vous en trouverez les elevations interieures et exterieures, et toute la disposition des chapelles et des murs, et la facon des arcs-boutants* [this is now missing from the manuscript]. See the facsimile edition, HONNECOURT 1986, pl. 28.

7. HAGGH 1995-1, p. xxiv, n. 56.

8. See STEINER 1995; MUZERELLE 2000, p. 7 and pl. 60; BOUCKAERT 2007, p. 127 (description) and 128 (facsimile of fols. 368^v-369^v).

9. Edited by HAGGH 1995-1.

10. See MUZERELLE 2000, p. xii and plates 57-65, especially p. 7 and pl. 60 (on CA 38). For recent scholarship on St. Elizabeth of Hungary, see BLUME & JOHN 2007.

11. MUZERELLE 2000, p. xii.

12. HAGGH 1995-1, p. xiv-xix. This Gerard is the author of the account of the translation of the Crown of Thorns from Constantinople to Paris in the mid-thirteenth-century manuscript, Paris, BnF, n.a.lat. 1423, from northern France. See DURAND & LAFFITTE 2001, p. 46 (manuscript described by Marie-Pierre Laffitte). I was not aware when I published *Two Offices* that BOEREN 1956, p. 53 had indicated that Guiard of Laon, the bishop of Cambrai while the St. Elizabeth story transpired, died at the Abbey of Afflighem, where he was buried on 16 September 1248. This strongly suggests that it was he who brought information about the composers

There are strong arguments contradicting Muzerelle's dates, however, and they must be considered, because the date of CA 38 is important for the argument about its notation to be presented below. In 1995, I had pointed out that Guiard of Laon, bishop of Cambrai from 1238 to 1248 (according to P.C. Boeren), had decreed between 1238 and 1245 that the feasts of Sts. Hylarius, Fabian and Sebastian, Agnes, Géry, Cosmas and Damianus, Michael, Amatus, Eleven Thousand Virgins, Maxellende, Elizabeth, Catherine, and Nicholas, which were poorly celebrated, should be abolished in his diocese, leaving only the feast of one martyr, St. Lawrence, and of one confessor, St. Martin.¹³ This evidently was considered a remarkable event, because it was reported, surely in Paris, by an anonymous Dominican,¹⁴ and by Robert de Sorbon, founder of the Parisian college bearing his name, who became a canon of Cambrai Cathedral thanks to Guiard's intervention sometime before 1250. Robert wrote: *Giardus amovit maiorem festuum partem de calendariis in episcopate suo, quia de martyribus non faciebat festum nisi de beato Laurencio, in confessoribus tantum de beato Martino* ('Gerard removed the greater part of the feasts of the calendar in his diocese, because [it] was not celebrating a feast of martyrs except that of St. Laurent and of confessors only St. Martin').¹⁵

As P.C. Boeren explains, the statutes A of the diocese of Cambrai, which were written while Guiard de Laon was bishop, list at Title XIII^{bis} only the feasts of St. Lawrence and St. Martin.¹⁶ Boeren points out that the abolished feasts are in red letters in the calendar of CA 93, a winter breviary, which he dates 1234-1238 because material for St. Elizabeth of Hungary is present, whereas that for the Translation of St. Géry of 1244

of the texts and music of the first Elizabeth office to the Abbey of Affligem, information which appeared in an anonymous catalogue of ecclesiastical authors attributed to Henry of Brussels of Affligem, a catalogue dated from circa 1270-1280 (HAGGH 1995-1, p. xiv and n. 14). A further suggestion of the significance of this bishop of Cambrai is a constellation of events that point to a role for the Cistercians in the history of Cambraian worship of St. Elizabeth. First, the text reproduced by MUZERELLE 2000, pl. 58, with incipit *In partibus Saxonie cenobio quod Amelum Gelboenensis dicitur Cysterniensis ordinis*, is a set of miracles of St. Elizabeth of Hungary that is not cited in *Bibliotheca hagiographica latina* (Brussels: Société des Bollandistes, 1898-1899, repr. 1992), p. 373-377, or in HAGGH 1995-1. Second, BOEREN 1956, p. 14 and 52-53 explains that Guiard of Laon had an evident attachment to the Cistercians: he wrote a sermon in honor of St. Bernard and the Assumption of the Virgin, and he employed Cistercian chaplains at his bishop's palace in Cambrai. Furthermore, a sketch of the Cistercian Abbey of Vaucelles also appears among the drawings in the sketchbook of Villard de Honnecourt (fol. 17¹), as does the choir of Cambrai Cathedral. Finally, see n. 24 below on similarities between CA 122, a Cistercian manuscript, and CA 38.

13. STEINER 1995, p. xi and n. 17.

14. BOEREN 1956, p. 66-67. The text of the anonymous Dominican author is in Paris, BnF, lat. 15129, fol. 169^r. One wonders if the anonymous Dominican author might be a certain 'Guerric de St Quentin, O.P.', who taught in Paris from 1233 to 1242 and cites the name of Guiard of Laon, who might have been his teacher, several times (BOEREN 1956, p. 41-42 and 46). *Frater Gerardus monachus sancti Quintini in Insula* (in the Affligem chronicle), the author of the texts of the earliest office for St. Elizabeth of Hungary discussed above, cannot be the same individual, because the Abbey of St. Quintin-en-Isle was Benedictine.

15. BOEREN 1956, p. 66-67. Robert de Sorbon's text is in Paris, BnF, lat. 14971, fol. 146^r. The founder of the Sorbonne college had a long relationship with Guiard of Laon, who had been one of six regents of the theology faculty of the University of Paris in 1222; dean, canon and theologus of Notre Dame Cathedral in 1226; and, briefly, in 1237/38, chancellor of the University of Paris (BOEREN 1956, p. 31-34). According to Boeren, Guiard was probably responsible for giving Robert of Sorbon a canonicate at Cambrai Cathedral sometime before 1250, and after his death, Robert praised Guiard (BOEREN 1956, p. 52 and 56). Also see n. 25 below on the donation of hundreds of books by a canon of Cambrai Cathedral to the library of the Sorbonne in the second half of the thirteenth century, evidence of continuing contact between the Sorbonne and Cambrai Cathedral.

16. See BOEREN 1953, p. 9-10; 1956, p. 51.

is added.¹⁷ Since these feasts are only in black letters in the calendar of the earlier summer breviary, CA 46, not dated by Boeren, but dated 1173 to 1228 by Muzerelle because of the absence of the feast of St. Francis, Boeren assumes that CA 46 was copied while those many feasts were not celebrated. Comparison of Plate 47 (CA 46) and Plate 62 (CA 93) in Muzerelle does confirm that the Gothic script of CA 93 is of later date, but Muzerelle's dates suggest that neither manuscript is late enough to reflect Bishop Guiard's dramatic decision.¹⁸

According to Muzerelle and others who have tacitly followed him, CA 38 was copied between 1235 and 1245, because, like CA 93 cited above, it includes the feast of St. Elizabeth of Hungary, but lacks that for the Translation of St. Géry. Yet this would situate the copying of both CA 93 and CA 38 precisely during those years when Bishop Guiard had abolished the feasts that receive red letters in the calendar of CA 93 and, but for Hylarius and Amatus, are represented with chant and even full proper offices in CA 38, including St. Géry in two locations.¹⁹

There is a solution to the problem. Earlier, I had proposed that CA 38 must have been prepared in the second half of the thirteenth century,²⁰ and certainly before 1299, the year of death of Ubald de Sart, dean of Cambrai Cathedral from 1277 to 1299. Under de Sart, numerous statutes appear to have reinstated the duplex feasts that had been removed earlier, so it is not surprising that he commissioned the copying of a three-volume breviary of similar size to CA 38, which survives as CA 33-35, and a now lost missal.²¹ I thus concluded, a conclusion I maintain, that CA 38 probably dates from between 1286 and

17. BOEREN 1956, p. 67; MUZERELLE 2000, p. xii on the Translation, which he dates to 1245. Also see GROTEFEND, p. 106. The Translation was on August 11, except in Paris, where it was moved to August 12 so as not to conflict with the Feast of the Crown of Thorns; the Elevation was celebrated on September 24.

18. BOEREN 1956, p. 67; MUZERELLE 2000, p. 9 (CA 46), p. 18 (CA 93)

19. But note that CA 38 has chant for the feast on fol. 305^r and the Elevation on fol. 368^r in its first layer, and no supplementary chant appears for the Translation either in CA 38 or in CA Impr. XVI C 4. I conclude that no liturgical evidence exists to show that the Translation was celebrated with a distinct set of proper chants and texts, and consequently, that the absence of a special rubric in CA 38 is no evidence that the manuscript predates the Translation.

20. Or, after 1268, the year when the chapel of the *grands vicaires* was founded. Written on the inside cover of CA 38 in a late thirteenth- or early fourteenth-century script is the text, *Hic liber pertinet ad sacellum magni collegii cameracensis*, which I had interpreted to mean the chapel of the *grands vicaires*, which was founded in 1268 and dedicated to St. Stephen. This was the chapel where Guillaume Dufay was later buried. See STEINER 1995, p. x. Of course, the manuscript may have been copied before the foundation of the chapel and come into its possession later on. Michel Huglo disagrees with me, and points to the existence of a College de Cambray in Paris. Yet there is no evidence that this College, which was destroyed in 1609, existed in the thirteenth century (about the College, see DELISLE 1868, p. 197, n. 2). Nevertheless, a certain Philippe Grivellius, doctor of theology and *socius* of the Sorbonne, also rector of the University of Paris in 1499, is named *primarius collegii Cameracensis* (see DELISLE 1874, p. 170; he donated eight manuscripts to the Sorbonne). In the thirteenth century, a certain Jacques de Marli, cantor of Cambrai Cathedral, gave the College of the Sorbonne a Bible and a Gospel book, Paris, BnF, lat. 15270-71 (see DELISLE 1874, p. 155-156) and Jean Mercier of Cambrai gave the Sorbonne Paris, BnF, lat. 16565 (DELISLE 1874, p. 159-160); also see DELISLE 1874, p. 256, regarding Paris, BnF, lat. 5625, a gift from the College de Cambray, but no donor is named. Finally, the canon of Cambrai Cathedral and archdeacon of Ponthieu in 1256, Géroud d'Abbeville, who was regent of the faculty of theology in Paris from 1254-1272, bequeathed in 1271 his library of 300 books to the Sorbonne; see DELISLE 1874, p. 148; MABILLE, 1974; and HUGLO & PHILLIPS 1985, reprinted as article XI in HUGLO 2005, regarding Paris, BnF, lat. 16662, gift of Abbeville. I wish to thank Michel Huglo for these references.

21. STEINER 1995, p. x-xi. CA 38 measures 34 x 23 cm. Ms. 33-35, a three-volume breviary, is dated 1253-99 by MUZERELLE 2000, p. 6.

1289, which would explain the presence of the older Elizabeth office in the main layer of CA 38, but not in the three-volume breviary commissioned by De Sart, which was prepared just before De Sart's death and includes only the later office for St. Elizabeth.²² It is also striking that CA 38 is the only manuscript in Muzerelle's 'St. Elizabeth group' with square and not Messine notation.²³

The illuminations and decorated initials in CA 38 also point to the second half of the thirteenth century. Its *rinceaux* and longer tails are also found again, first in a Parisian manuscript, Vienna, Österreichische Nationalbibliothek, ms. 2315, which Robert Branner placed in his 'Cholet group' with others from the last half of the thirteenth century, but mostly from the 1260s, and second, in CA 122, a Cistercian manuscript from the Abbey of Notre Dame de Vaucelles, dated 1259-1284. CA 122 shares with CA 38 the colors and style of its *rinceaux* and the shape of its square notes and of some plicas.²⁴ Given these similarities and the Cistercian contribution to the Cathedral's thirteenth-century history described above, it seems at least possible that CA 38 was sent to Cistercians, whether at Vaucelles or in Paris, to be copied.

In short, Muzerelle's dates, not only of CA 38, but also of the other thirteenth-century manuscripts from Cambrai Cathedral, should be reviewed using other evidence besides the date of canonization of St. Elizabeth of Hungary.

CA 38 has several chronological layers, and the later layers are also important. Folios 405-432 were added in the early fourteenth century according to Muzerelle, but I proposed dates of 1419-1450 for all of the later additions in the manuscript, because their content corresponds to foundations of known date.²⁵ Folios 433-437 were added in the fifteenth century, according to Muzerelle.²⁶ They contain an incomplete office of St. Egidius, whose insignificant feast was raised to duplex rank by the dean, Gilles Carlier [*Egidius Carlierius*], in 1450.²⁷ I argued that manuscript additions to the main part of CA 38, which are not mentioned by Muzerelle, reflect the reforms introduced by Pierre d'Ailly while he was bishop of Cambrai, between 1396 and 1411.²⁸

That CA 38 is a uniquely important witness to the history of the liturgy at the Cathedral is borne out by fifteenth-century inventories of the Cathedral's books. CA 38 was the only other antiphoner kept in the vestry in 1461 besides the two new fourteen-volume

22. Two of the three volumes of the breviary contain the office: CA 34, fols. 270^r-277^r (for the Elevation of St. Elizabeth), and CA 35, fols. 338r-343r (for the *Nativitas* of St. Elizabeth). See STEINER 1995, p. xi, n. 16. But CA 34 (fols. 272^r-277^r) and CA 35 (fols. 339^v-342^v) also contain a northern French *Vita* of St. Elizabeth with passages derived from the earlier *Gaudeat Hungaria* office, as was shown by Matthias Werner. See GECSE 2009, p. 73, n. 113 (49-107).

23. There might be, of course, the possibility that it was prepared by Dominicans or Franciscans associated with the Sainte-Chapelle, which adopted the same office for St. Elizabeth of Hungary, or by Cistercians (see n. 12 above), but it seems unlikely that a manuscript filled with the offices of saints venerated especially at Cambrai Cathedral and not in Paris should have been prepared so far from its destination.

24. See BRANNER 1977, plate 388, of Vienna, Österreichische Nationalbibliothek, fol. 100^v, the description of this manuscript on p. 238, and the discussion of the 'Cholet group' on p. 130-132; a facsimile of fols. 114^r-115^r of CA 122 is on p. 72 in BOUCKAERT 2007.

25. I dated the gatherings added to the end of the manuscript as a group, whereas Muzerelle, correctly, separated them, although I do not agree with his dates. The presence of an office for the Crown of Thorns, which is attested in no other source, does suggest Parisian influence, but this is not the Parisian office. See STEINER 1995, p. ix, n. 7, and p. xii.

26. MUZERELLE 2000, p. 7.

27. HAGGH 1992, p. 558.

28. STEINER 1995, p. xii-xv.

antiphoners copied in the mid fifteenth century,²⁹ surely those copied under the direct supervision of Guillaume Dufay.³⁰ This raises the possibility that Dufay might have used CA 38 as a reference work, and my comparison of CA 38 with the later printed antiphoner, CA Impr. XVI C 4, also a work of authority in that it was the first printed antiphoner of the diocese of Cambrai, did indeed reveal few variants. Those found clearly resulted from the introduction of new feasts to the calendar in the fourteenth and fifteenth centuries.³¹ CA 38 thus appears to be a source of great authority for the history of the liturgy – and of music – at Cambrai Cathedral, from the time of its copying through the mid fifteenth century.

To understand the square notation of CA 38 by the scribe of the main part of the manuscript and of the different scribes of the supplement at the end of the manuscript, it is useful to consider some of the earlier ways of notating chant. From the tables of the neumes of St. Gall and Laon published by Eugène Cardine, we see that these neumes do not explicitly represent discrete pitches: single strokes of the pen often link several pitches. Two neumes next to each other in those manuscripts may represent pitches of different height.³²

The neumes that preceded square notation at Cambrai Cathedral are usually categorized as Messine, and appear mainly in Flemish-speaking regions and in northern France. The earliest Messine neumes from Cambrai Cathedral – in the processional and troper-proser from the late eleventh or early twelfth century CA 72, the gradual from the first half of the twelfth century CA 60³³, and the missal from the first half of the twelfth century CA 234 – are heightened, but *in campo aperto*, and thus only approximate pitch.

Also in Messine neumes, but now notated on four black lines and thus indicating distinct pitches, are three psalter hymnals, the first written between 1131 and 1173, CA 193; the second between 1224 and 1235, CA 37; and the third between 1235 and 1238, CA 28; and the notated breviary from 1173 to 1228, CA 46³⁴ – all manuscripts predating the first celebration of the mass in the new Gothic cathedral of Cambrai on Easter Sunday in 1250.³⁵ From these manuscripts, we can deduce that the change to square notation at Cambrai Cathedral did not correspond to the introduction of the staff, and was thus not made out of any necessity to indicate precise pitches.

29. *Ibid.*, p. x-xi, and HAGGH 1995-3, p. 79-85, here p. 80 and 82. CA 38 and the new multi-volume antiphoner are the only antiphoners in the vestry in the inventories of 1461 and 1519: CA 38 is not attested in the earlier inventories.

30. On the copying of the multi-volume antiphoner, see CURTIS 1991, p. 156-163; and, for context, FALLOWS 1987, p. 63, nn. 14-15, and PLANCHART 1988. In HAGGH 1992, I argued that the new manuscripts had to be prepared to include the chant for so many new foundations.

31. STEINER 1995, p. xxvii-xxviii. Note the superimposed gray shading that facilitates comparison of the two antiphoners.

32. See CARDINE 1982, p. 12-13.

33. On CA 78, see *Paléographie musicale III*, plate 163B (facsimile); *Graduel romain*, p. 39; MUZERELLE 2000, p. 15 and pl. 20; HUGLO 2004, p. 40, F 35/2; and BOUCKAERT 2007, p. 69 (description and color facsimile of fols. 144^v-145^r). On CA 60, see *Graduel romain*, p. 39, MUZERELLE 2000, p. 12 et pl. 21; and BOUCKAERT 2007, p. 66-67 (facsimile and description). On CA 234, see *Paléographie musicale III*, plate 162B (facsimile); *Graduel romain*, p. 39; MUZERELLE 2000, p. 51 and pl. 22. On the Parisian connection, see *Le Graduel romain. Édition critique*, IV. *Texte neumatique*, I. *Le groupement des manuscrits* (Solesmes: Abbaye Saint-Pierre, 1962), table between p. 220 and 221. Michel Huglo communicated to me that it was Dom Jacques Froger who prepared the classification and this table. It is significant that the content of this gradual CA 60 is aligned with that of Parisian manuscripts in the *Graduel critique* of Solesmes.

34. On CA 193, see MUZERELLE 2000, p. 42 and pl. 27, and BOUCKAERT 2007, p. 68; on CA 37, see MUZERELLE 2000, p. 7 and pl. 37; on CA 28, see MUZERELLE 2000, p. 4-5 and pl. 59; on CA 46, see MUZERELLE 2000, p. 9 and pl. 47.

35. STEINER 1995, p. xxi, n. 48.

Given that by this time older neume forms on a staff did indicate discrete pitches,³⁶ the reasons for introducing black square notation were purely aesthetic. Its introduction in northern Europe corresponds roughly to the years of the rise of Gothic architecture, a style which radiated from Paris throughout Picardy, and of the introduction of Gothic script: thus, the rounded pre-Gothic script of CA 27 (Muzerelle, Pl. 45) or of the later Cambrai 46 (Muzerelle, Pl. 47), for example, became the Gothic *textualis* of CA 37 (Muzerelle, Pl. 57), CA 28 (Muzerelle, Pl. 59), and of CA 38 (Muzerelle, Pl. 60).³⁷ The dates of the manuscripts from Cambrai Cathedral suggest that it was the construction of the new Gothic cathedral that prompted the change to square notation. The lengthy presence in Paris of Guiard de Laon, bishop of Cambrai, precisely during the years of the Cathedral's construction, as described above, was surely not inconsequential in this regard.

An increasing preference for larger service books for the choir is said to have developed as a consequence of this new type of notation, which could easily be written larger, unlike the earlier neume shapes. At Cambrai Cathedral, larger service books only appear in the late fourteenth and fifteenth centuries, however. The leaves of the gradual CA 60 measure 26.8 x 16.3 (60); those of CA 38 measure 23.7 x 16.6. Yet those of the gradual of 1540 to be discussed, CA 12, measure 48.5 x 34.5.

As the only thirteenth-century manuscript in square notation from Cambrai Cathedral, CA 38 is thus the earliest to survive from the Cathedral of this type. All of its leaves were ruled with twelve red four-line staves. Occasional special forms appear, such as the *oriscus*, *distropha* and liquefent *clavis*, as well as naturals and flats. That no *custos* is used in CA 38 is noteworthy, but not surprising. As Michel Huglo observed, the *custos* appears first in the tenth century in Italy from which it comes to Cluny and Dijon and then finds its way to the Aquitaine. It was imported to Paris in the thirteenth century, where it is described in Dominican statutes of circa 1254 and then appears in Dominican manuscripts.³⁸ Its diffusion to northern France has not been investigated, but *custodes* do not appear in the Montpellier codex, which Robert Branner placed in the second half of the thirteenth century, as have Mary Wolinski, Mark Everist, and Catherine Parsoneault.³⁹

When square notation replaced the neumes, to what extent were the scribes using them still thinking in terms of neumes? And given that square notation was also used to represent polyphony in the thirteenth century, did scribes writing down chant know polyphonic mensural notation, and would that have had an influence on the choices they made as they

36. Cf. *Grove Music Online*, s.v. 'Notation, III.1(vi)' (accessed 13 May 2008).

37. On these scripts, see DEROLEZ 2003, p. 56-101 (chapters 3-4).

38. See BESSELER 1973, p. 50 (commentary) and 51, facsimile of Darmstadt, Landesbibliothek, Kodex 3471, fol. 6^v, from early fourteenth-century fragments from the Dominican convent of Wimpfen in Germany. This leaf shows the *custos*. Also see Michel Huglo's contribution to this book and his article, « Règlement du XIII^e siècle pour la transcription des livres notés » in HUGLO 2005, art. XVIII, especially p. 124-125 (transcription of Franciscan and Dominican statutes of the mid thirteenth century) and 128-130 on the *custos* (only referred to in the Dominican statutes). Ligatures and pauses are mentioned in the Franciscan statutes; the Dominicans refer only to *virgulae pausarum*. This article was translated into English by Thomas Forrest Kelly and published as « Notated Performance Practices in Parisian Chant Manuscripts of the Thirteenth Century », in KELLY 1992, p. 32-44.

39. BRANNER 1977 places the different parts of the manuscript in the Henry VIII group, the Cholet group, and the Royal Psalter group (see p. 106, 131 and n. 36, p. 136, 237-239); other dates assigned vary from the 1260s (Wolinski) to the 1280s (Everist and Parsoneault), with fasc. 8 from the early years of the 14th century. See PARSONEAULT 2001, and LORBLANCHET & VIAL 2006.

wrote? As we shall observe, the music scribe of CA 38 wrote down the chant melodies in full awareness of the neumes of chant and most likely of square polyphonic notation.⁴⁰

Evidence that scribes 'translated' the old non-square neume forms into square notation, and that even the names of the old neume shapes were remembered at least into the fifteenth century, especially in Italy, is found in contemporary music theory. John Hothby wrote in the fifteenth century: 'We detect in some church books the *quilismata*, *podatos*, *clines*, *cephalicos*, *porrectos*, *oriscos*, *scandicos*, *salicos*, *climacos*, *torculos*, *ancos* and others, which the same Guido invented'.⁴¹ Hothby was surely describing older neume forms and not square notation, but several neume tables in square notation do survive in medieval manuscripts of music theory, and have been published by Michael Bernhard.⁴² Of particular interest for the notation of CA 38 is the neume table found within the treatise *Practica artis musice* by Amerus in Bamberg, Staatsbibliothek, Ms. Lit. 115, on fol. 74^v. The treatise was bound in after the better-known collection of Parisian motets of the second half of the thirteenth century.⁴³

When Amerus's table, which Michael Bernhard thinks may have been copied from a German model,⁴⁴ is compared to the neume forms of the earlier CA 38, only two insignificant differences emerge: in the table, where a higher pitch is liquescent, it is written to the right of the preceding pitch instead of to the left as in CA 38, and there is a neume with a rising stem on the third staff not found in CA 38. Otherwise, exactly as in CA 38 as we shall see, the only shape used in the 'Bamberg' table for the *punctum* and *virga* (here *virgula*) is what was known at the time in a 'polyphonic' context as the *longa*, i.e., a square note with a descending stem on the right. Nowhere does the table show a square note without a descending stem (in polyphony, a *brevis*). (Some of the motets in the Bamberg manuscript clearly include both *longae* and *breves*, but they are situated in other gatherings, not in the gathering with Amerus's treatise).⁴⁵

In the very likely contemporaneous earliest layer of the CA 38 manuscript, every single pitch is represented by a *punctum* drawn as a square note with a short descending stem to the right.⁴⁶ By contrast, single pitches in the added gatherings of much later date at the end of the manuscript lack this stem.⁴⁷ One might argue that the short stem is a survival from the Messine notation, since both the *uncinus* of CA 78 (*in campo aperto*) and CA 37 (on a four-line staff) and especially the *clavis* in the Messine manuscripts from the Cathedral are drawn from left to right and then descend to the right (Muzerelle, Pl. 59). But whatever its origin, it is significant that the *punctum* in CA 38 and the *punctum* in Amerus's table are drawn the same way, with a sign that in contemporaneous polyphony was called the *longa*.

40. Cf. DELCROIX 1921, p. 79 ('Tableau indiquant la transformation de quelques sortes de neumes en notes carrées, d'après M. de Coussemaker').

41. See BERNHARD 1992, s.v. 'Clinis (clavis)', and 1997.

42. See BERNHARD 1997, p. 38 (Trier, Bibliothek des Priesterseminars, Ms. 44, fols. 329^v-330^r) and 38-39 (Washington, D.C., Library of Congress, ms. ML 171 J 6, fol. 79^v, Venice, 15th c.).

43. *Ibid.*, p. 26. Notice that the names of the neumes only occasionally match the examples: most double bar lines separate examples of more than one neume type. Regarding the Bamberg manuscript, Patricia Norwood places its first section with motets in Paris and possibly on the Île-de-France in the fourth quarter of the thirteenth century; the treatise was written down in the early fourteenth century. According to Fritz Reckow, the Bamberg codex is closest to the notation described by Johannes de Garlandia, as Johannes Wolf had claimed earlier (see RECKOW 1967, p. 142).

44. We must remember the influence of Cologne on Paris in the thirteenth century, and the transfer of Parisian knowledge into Germany by students and others.

45. See, for example, fol. 1^r in Bamberg, Staatsbibliothek, Ms. Lit. 115 (facsimile in BESSELER 1973, p. 48 (discussion) and 49 (facsimile)).

46. This is visible in HAGGH 1995-1, plates I, III and IV, p. xii-xiii; MUZERELLE 2000, p. 200, pl. 60.

47. See HAGGH 1995-1, plate I, p. xi.

The transformation of the representation of a chant *punctum* from a stemmed square note to an un-stemmed square note in CA 38 raises questions about any potential association between its chant notation and the notation in manuscripts of Parisian polyphony. We know that during the course of the thirteenth century, the regular pulse in polyphonic music moved from the *longa* of the Parisian repertory to the *brevis* of later motets, the *longa* being a square note with a descending stem on the right; the *brevis* a square note without a stem. Was the change of shape of the *punctum* in CA 38 due to the changed notation of the main pulse in Parisian polyphony? This issue is, in fact, very complex.

A comparison of the notation of CA 38 with the notation of the manuscripts with mainly Parisian thirteenth-century polyphony, F (Florence, Biblioteca Medicea Laurenziana, Pluteo 29,1) and W1 (Wolfenbüttel, Herzog-August Bibliothek 677), reveals many points of contact between their monophonic and polyphonic square notations.⁴⁸ Single pitches in these manuscripts and in CA 38 are either *longa*-shaped or rhomb-shaped, but un-stemmed squares are almost non-existent.⁴⁹ Binarias, ternarias, and quaternarias in so-called Notre-Dame notation use the same shapes as do the neumes in the oldest layer of CA 38. They are drawn according to three principles: first, if the pitch rises, the second square is immediately above the previous pitch, unless the two pitches are one step or less apart, which requires that the second pitch be placed to the right of the first. No matter how many pitches rise, the last pitch must be a square immediately above the previous pitch, unless the interval is so small that there is no room on the staff.

Secondly, if the pitch descends and does not rise again after that, it is written as a square to the right and below the previous pitch. If three pitches descend, the last is to the right and below the previous pitch. Exceptional are the representations of the neumes *climacus* and *pes subbipunctis*, where the descending notes are small rhomb-shaped figures.

Third, if a pitch descends and then rises again, as in the *porrectus* or *porrectus flexus*, the first two of the three or four pitches are written as a diagonal line with a stem to the left of its beginning. All of the neumes in the main layer of CA 38 and in Parisian sources of organum follow these principles.

In short, distinct shapes in chant and polyphonic square notation correspond to the neumes of the chant and were drawn following specific rules. Even the *plica* is drawn the same way in CA 38 as in the Montpellier codex and even in French secular monophony of the thirteenth century.⁵⁰ This confirms our supposition that the change from neumes to square notation occurred at more or less the same time in the chant repertory and in the polyphonic repertory, perhaps first in Chartres, Rouen, or Paris, according to Michel Huglo.⁵¹

It is significant that these early repertoires with square-notation hardly ever include the *brevis* shape, and this should have implications for our understanding of the system of rhythmic modes. Many have argued that the rhythmic mode system developed from poetry and metrics or grammar; Edward Roesner has taken another view to propose a gradual

48. In HAGGH & HUGLO 2004, we argue that F, formerly regarded as the principal source of 'Notre Dame' polyphony, contains a repertory compiled from various centers, not only Notre Dame of Paris, but also other Parisian establishments and Sens, for King Louis IX, which explains its diffusion in manuscripts associated with royalty or those of the Order of their confessors and preachers, the Dominicans.

49. One of these is at the opening of the organum quadruplum *Sederunt*, beginning in the two middle voices at the third *ordo*. In F, the repeated notes include *brevis* shapes. Yet at the very same location in W 1, the same notes are with two exceptions rhomb-shaped, producing a neume akin to the *climacus*. Another similar location is in the clausula *Mulierum*: in W 1 the repeated notes are rhomb-shaped; in F they are square.

50. See PARRISH 1978, plates XXXVIII-XLI and XV.

51. Personal communication from Michel Huglo.

evolution resulting inevitably from the developing complexity in counterpoint.⁵² Yet few have emphasized that the terms *brevis* and *longa* appear in numerous early treatises on music, usually with the meaning of long and short syllables or long and short durations.⁵³ Every choirboy would have understood these terms in this way only from their music lessons. What is significant is that these meanings nowhere prescribe an exact relationship of short to long – it is relative. Even in quantitative verse the unit of measurement is the foot, and the relationship of the short syllable to the long syllable is relative, not exact. That the system of rhythmic modes uses the six principal feet of Latin poetry argues that its application to music could have easily occurred at once, but without any implication of patterns of feet as in quantitative verse: the selection and predominance of any particular rhythmic mode would have been a matter of taste, as it is in poetry, not evolution. While this solution does overlap with what has been previously written by others, it emphasizes for the first time the small step it would have been from a young singer's elementary instruction from reading music treatises and singing chant to their application in the performance and notation of Parisian polyphony.

The new system would have been easy to apply to music using the ligature patterns of the chant, without an explicit *brevis*, because it was implicit in this system. Similarly, no measured rests were necessary, because the unit of measurement was the foot. The *brevis* shape signaled a later stage of development, when shorter lengths needed precise representation.

As we observed by comparing the ligatures in CA 38 with those in F and W1, chant ligatures were taken over to create mensural ligatures, which therefore 'had propriety', the quality of their first note, and 'perfection', the quality of their last note. This origin of polyphonic ligatures in chant notation was still recognized almost three centuries later by Gaffurius, in his *Practica musicae*, book 2 (1496): 'Propriety, however, according to Franco, is ordered by the constitution and position of the beginning of the ligatures in chant attributed to the first authors. It is why all the ligatures in plainchant only possess propriety. The ligatures without propriety, however, and with opposite propriety, are never suitable for the small notes of plainchant: by the fact that these [ligatures without propriety or with opposite propriety] differ essentially from ligatures with propriety, producing diverse figures and names and quantities, because in plainchant it is never admitted, whose notes of equal measure of time were used by musicians'.⁵⁴

Given that the notational signs used in chant and polyphony (apart from the later polyphonic Franconian ligatures) were the same throughout the thirteenth century (and, in some cases, even in later centuries), future research should seek to track the introduction of the *breve* in manuscripts of chant and of monophonic vernacular song.⁵⁵ This may help

52. See ROESNER 1990. He provides a useful bibliography of the debate on p. 44-45. Cf. HUGLO & PHILLIPS 1985, and FLOTZINGER 2003, p. 148-153 who restates his earlier opinions.

53. See BERNHARD 1995, s.v. '*brevis*' and '*longa*'.

54. Quoted by JACOBSTHAL 1871, p. 15. Cf. GAFFURIUS 1496, fol. aaiijv: *Est (autem) proprietas secundum Franchonem ordinata constitutio et positio principii ligaturarum in cantu plano a primis auctoribus attributa. Quare omnis in cantu plano ligatura solam proprietatem possidet. Sine proprietate autem ligatura et cum opposita proprietate notulis cantus plani nusquam convenient: quippe quae essentialiter a ligatura cum proprietate differentes, figuris et nomine et quantitate diversas efficiunt, quod in cantu plano nullatenus admittitur, cuius notulas aequa temporis mensura musici disposuerunt.*

55. On single notes notated as longs or longs and breves or only breves, see MORE 1965 who observes (p. 130), that in France in the fifteenth century the standard is the square *punctum*; in Italy the tailed *virga*; and in England both forms of notes. She discusses many other examples of mensural chant. One can add that the fact that the *semibrevis* never became the *punctum* in chant manuscripts seems to reflect the numerous

us to understand better the development of the fully measured mensural polyphony of the thirteenth century. In any case, the consistent use of either stemmed or un-stemmed *puncta* in later medieval chant manuscripts provides evidence for the equal-note performance of chant beginning in the thirteenth century.⁵⁶

The square notation in the fifteenth-century layers of CA 38 is characterized by the predominant use of notes without stems for single pitches. *Longae* appear occasionally: on accented syllables, single-syllable words, or on final syllables, clearly meaning that the note should be held longer (see fol. 412^r). They also fulfill the older function of the *virga* when they begin a *climax* figure. Only two neumes in the later layer of CA 38 do not follow the norms described above for the main layer of CA 38: the *porrectus* ends with a square to the right of the previous note (fol. 423^r and elsewhere), as does the *torculus resupinus* (fol. 412^v and elsewhere). In a world of polyphonic notation these neumes would have indicated ligatures consisting only of *breves*, i.e. of notes of the same length, as they were intended to be here in the chant. This is evidence that the scribe effectively removed any ambiguity that could have resulted when a singer of polyphony read the chant neumes.

CA 38 is an antiphoner, a service book in which only monophonic chant was recorded. CA 11, which Curtis dates from c. 1442-1445, contains sacred monophony and polyphony in black mensural notation in the main part of the codex, but its surrounding flyleaves only show Latin-texted monophony in black square notation.⁵⁷ Liane Curtis argued that since specimen sheets show the different writing styles in which a scribe was proficient, then manuscripts like this one, with chant and polyphony notated differently, could have been written by the same scribe, here Simon Mellet, which her archival evidence confirmed.⁵⁸ A closer look at the chant in this manuscript shows Mellet to have been an even more versatile scribe and musician than was previously thought.

The sequence *Salve decus puritatis* on folios 1^{r-v} in CA 11, whose melody and text also survive in CA 6, an earlier manuscript with mostly the same contents as CA 11, but not in any other source, was written down in both manuscripts by Simon Mellet, according to Curtis.⁵⁹

statutes calling for a slow and dignified performance of the chant. On the use of longs, breves, and rhombs in chant manuscripts, also see MACIEJEWSKI 2001, p. 292, and LONG 2008.

56. See HILEY 1989, p. 44, and MORE 1965. The latter argues that equal note performance of plainsong was the norm in the fifteenth and sixteenth centuries, but that some hymns were regularly notated mensurally (*Conditor alme syderum* and *Pange lingua*, p. 125), and that chant using semibreves and occasional minims 'would seem rather to be an attempt to stylize in note-values a *free speech-rhythm*' (p. 127). She also mentions Jean Le Munerat 'expressing indignation at the choir of one church who dared to introduce a small note-value borrowed from polyphony into the "plain, grave and uniform" liturgical chant' (p. 129-130). Cf. HARRAN 1989, p. 91: 'the small note value is a minim or a black flagged note'.

57. The date is given by CURTIS 1991, p. 106, and 1999, p. 157. A facsimile edition of the manuscript is CURTIS 1992. Also see the color facsimile of fol. 15^v-16^r of CA 11 in BOUCKAERT 2007, p. 92, no. 57 (facsimile) and 93 (description).

58. The archives do not confirm that Mellet copied this specific manuscript, but that he copied both chant and polyphony. See CURTIS 1999, p. 145-155, and 1991, especially p. 95-102.

59. See CURTIS 1994. Of the texts beginning *Salve decus* in *Analecta hymnica medii aevi* and in Ulysse Chevalier's *Repertorium hymnologicum*, none have exactly the same poetic scheme as this sequence; its melody has no matches in BRYDEN & HUGHES 1969. Cf. HAGGH 1993, p. 2332 [104], and 2008. Other chant from Cambrai in mensural notation includes the last part of the sequence *Letabundus exultet* (CA 12, fol. 3^v-4^r) at *Infelix propera*, which is given the mensuration sign 3 ' ' (fol. 4^v); the last part of the sequence *Veni sancte spiritus* (CA 12, fol. 24^r-25^r) beginning at *Da tuis fidelibus*, which is given the mensuration sign 'C 3' (fol. 24^r); the entire sequence *Mittit ad virginem* discussed here (CA 12, fol. 83^r-84^r), which is given the mensuration sign 'XXX'; the hymn *Conditor alme syderum* (Advent) and its contrafactum, *Gratuletur ecclesia* (St. Barbara) in CA Impr. XVI C 4, fol. 1^r and 95^v respectively; and the hymn *Jesu salvator* in CA 30, fol. 107^r. CA 30 is described in BOUCKAERT 2007, p. 129, no. 79.

Throughout this sequence, the scribe placed *longa*-shapes over final syllables⁶⁰ and included six of what can only be described as c.o.p. ligatures.⁶¹ Every c.o.p ligature here is part of a cadential rhythmic pattern, *brevis-semibrevis-semibrevis-brevis-longa*, completing a textual and musical phrase. (Also notice the musical rhyme of the melismas on *cordium* and *filium*.) Furthermore, if the two-note ligatures are given a mensural interpretation here, they would equal *brevis-brevis*. The decision to write them this way was made for the same reasons we observed in CA 38, to make equal-note performance unambiguous for a singer versed in polyphonic notation. If these had been correctly drawn two-note *clivis* and *pes* shapes, a singer of polyphony would have read them as *brevis-longa*. There are even two places where alteration must occur, at the text *Eya virgo* the second *brevis* on the word *vir* must be altered, and the same is true at *Que salutis*.

In short, the scribe of this sequence is using polyphonic mensural notation, not chant notation – and not a recent notation, but one of the late thirteenth or early fourteenth century.⁶² The sequence ends with an *Amen* melisma consisting of five two-note ligatures, which could be *clivises* were it not for their lack of a stem on the left. In Franconian notation, each means *longa-longa*, befitting the end of a composition.

It is most remarkable that the first page of the following polyphony transports us to the early fifteenth century. Thus, what we are witnessing in CA 11 is dramatic evidence that musicians, such as Simon Mellet, did know and use not only chant and polyphonic notation, as Curtis claimed, but also polyphonic notations of widely different time periods. That Mellet understood the notation and did not merely copy it is suggested by the absence of error in his work.

The phenomenon of hymns, sequences, and Credos notated in triple meter was widespread in Europe, if infrequent in any one location, especially in the fifteenth and sixteenth centuries, but it was more typical to use alternating *breves* and *semibreves*, not *longae* and *breves*, as in *Salve decus puritatis*. Such pieces have not been studied much.⁶³ Perhaps the meter was a way of emphasizing the Trinity. In any case, when such pieces use metrical notation, they are never in duple meter. The first evidence for mensural elements in chant is found in Cistercian statutes beginning in 1217, and they are also mentioned in the *Docta sanctorum patrum* of 1322.⁶⁴

60. FALLOWS 2002, p. 105 and 108-109.

61. The earliest known c.o.p. ligatures are found in W 2 (Wolfenbüttel, Herzog-August Bibliothek 1206). For those in later manuscripts, see SCHREURS 1995, p. 112, for a color facsimile of an example of *cantus planus binatum* in black *breves*, *semibreves* and with c.o.p. ligatures, the anonymous short sequence *Omnes Mauricium* in Brussels, Bibliothèque Royale, ms. 9786-9790 (second half of the 15th century), fols. 26^r-27^r. This same manuscript, on fol. 5^r (facsimile on p. 117), has the monophonic antiphon *Martirum solemnia celebrant renati* with all *puncta* having the *longa* shape as in CA 38. This manuscript is from Munsterbilzen.

62. Since there is no mensuration sign here, it is impossible to know if the c.o.p. ligature was to be read in three or in two. If the latter was the case, it would be the early fourteenth century and the notation of Philippe de Vitry. See the English translation of Franco of Cologne, *Ars cantus mensurabilis*, in STRUNK 1998, p. 226-245.

63. See n. 53 above, and on mensural elements in the notation of monophony and in 'simple' polyphony, the important considerations by LÜTOLF 1976; REYNOLDS 1988; BENT 1989; CILIBERTI 1990; BENT 1999; BLACKBURN 2001, p. 315-316; HAGGH 2002; CALDWELL 2007. The most comprehensive article on this phenomenon that I have found is MACIEJEWSKI 2001 especially p. 299-300 on *Credo*, 312-313 with facsimiles showing c.o.p. ligatures, 326 showing a *Credo* with *semibreves*, and 332-347 with facsimiles showing *semibreves* and *minims*. The author notes that *cantus fractus* in Polish manuscripts is applied mainly to Alleluia verses of Marian content.

64. MACIEJEWSKI 2001, p. 293-294.

In CA 11, the alleluia and verse *O Maria pia mater* and the sequence *Gaude summa summa parens* on the flyleaves in CA 11 are notated in what we now recognize as standard square chant neumes. An interesting feature of the former is the presence of *longae* on some long (and accented) syllables or ends of words, but *breves* for less important notes. The only unusual neume in the latter sequence is the *porrectus* without a stem to the left (which in mensural notation would indicate a long) – the stem is present in *O Maria*. Also notice the final two-note *clivis* of the alleluia verse and sequence. The second note is undeniably intended to be held longer, but there is no known rule of notation prescribing such a sign or meaning.

Within the codex CA 11 there is, on fol. 6^r, a monophonic *Kyrie* in unremarkable black mensural notation, but with an intonation in red notation, and on fol. 22^v a monophonic *Gloria* in black mensural notation, with red notes and black hollow notes of the same meaning, and an intonation in standard square chant notation, but with a *longa* serving as a *punctum*. On fol. 46^r-48^r, the monophonic ‘choruses’ in black mensural notation of the *Credo* are unremarkable, but the monophonic *Credo*, *Sanctus*, and *Agnus* on fol. 48^v-50^v are very interesting, because their intonations in black square chant notation use *longae* as *puncta*.

In short, CA 11 is a fascinating mixture of the old and the even older: chant *puncta* written as *longae*, as well as *breves*; Franconian notation, and the hollow notes of the *ars subtilior* rubbing shoulders. The manuscript not only raises the question of the repertory of scripts of Simon Mellet, but also of the date, nature, and origin of the exemplars used for the copying, even beyond his use, according to Curtis, of the earlier CA 6.⁶⁵

We enter an entirely different world when we turn the parchment leaves of the large and beautifully decorated manuscript gradual, CA 12, which was prepared in 1540 by the named scribe Marcus Scutiferi for Robert of Croy, bishop of Cambrai from 1519 until his death in 1556, a manuscript with many musical variants and idiosyncrasies.⁶⁶ Although the clefs and *puncta* (here *breve* shapes) are no different from those in the later layers of CA 38, the presence of a *custos* and the lack of any sign for liquescence show that many decades have passed.

The neumes of CA 12 show many inconsistencies and changes by comparison with earlier chant neumes. The two squares of the *pes* are one above another unless there is only a half or whole step between the two pitches, in which case the second square is to the right. The scribe had to draw the neume this way, because the nib of the quill was too thick for the rise of a second. That was not a problem for the scribe of the smaller manuscript, CA 38. Nor did it stop the designer of the matrices of the printed antiphoner of Cambrai of circa 1510, CA Impr. XVI C 4. There, rises of a third are notated both ways. As a consequence, in CA 12, a *scandicus* with pitches close together appears as a stepladder, and the final note of a *torculus* always faces to the right, regardless of the interval. For the *clivis* and *porrectus* or other neumes beginning with a descent, the stem to the left of the first note is often missing, but not always. Here, the constraints of the staff determine the choice, and there seems to be less concern for following a norm.

Most interesting are the three sequences in CA 12 that include sections given mensuration signs and that use mensural notation. By this time, the pulse in polyphony was on the *semibrevis*, if not the *minima*. The only one of these sequences to be notated in alternating *breves* and *semibreves* throughout is *Mittit ad virginem* on fol. 83^r-84^v. It bears the *modus cum tempore* sign ‘03’, for perfect modus and perfect tempus, indicating diminution (e.g., *proprio tripla*) in which the *mensura* is moved from the *semibrevis* to the *brevis* of three

65. As described by Liane Curtis in the publications cited above.

66. On CA 12, see MUZERELLE 2000, p. 3 and pl. 154; and BOUCKAERT 2007, no. 76.

semibreves.⁶⁷ If the mensuration sign were not enough in itself, it is supported further by two *semibrevis* rests, which reappear along with the signature '3' at every verse. A seemingly awkward accentuation results: Mit TIT ad STE, etc.⁶⁸ It is significant that not only does Josquin des Prez begin his polyphonic sequence in this way in the prominent superius voice, but even the anonymous polyphonic setting in Trento, Biblioteca, Castello del Buon Consiglio, Ms. 92, once attributed to Dufay by Guillaume de Van (an attribution now rejected by Alejandro Planchart), begins the same way (e.g., after two *semibrevis* rests on an upbeat), thereby emphasizing the last syllable of Mit TIT.⁶⁹ David Fallows has noticed this emphasis on final syllables in Josquin's *Stabat mater* and *Gaude virgo mater Christi*.⁷⁰ It is difficult to draw conclusions only from CA 12, but this similar procedure is noteworthy.

The notation of *Mittit ad virginem* also includes a by now familiar c.o.p. ligature. Finally, at the melisma on *illuminare*, the scribe has removed the characteristic musical style of the original melisma and written instead a scalar rise, using ligatures which have no place in the chant, except for the *clivis* just before the final syllable. If these ligatures are interpreted as ligatures in polyphony, they would represent a succession of *breves*, except for the next to last note. This suggests that the knowledge of polyphony of this scribe writing in 1540 occasionally infiltrated his notation of the chant.

The scribe writing down music in a manuscript such as CA 12 could make spontaneous decisions, but if music was printed such decisions had to be made ahead of time, and predictably, conservative attitudes prevailed. About a decade after Petrucci's *Odhecaton*, so around 1508-1515, the Parisian printer Simon Vostre published an antiphoner *ad usum ecclesie Cameracensis* using the multiple impression process, the first known antiphoner printed in Paris and the first and only printed antiphoner for the diocese of Cambrai: CA Impr. XVI C 4.⁷¹ Here we find the *porrectus* ending with a square to the right, but also a *torculus* ending with a note directly above (fol. 37^v). *Breves* are used throughout for *puncta*, though *longae* begin *climacus* figures. The second note of the *pes* is directly above the first, always. There are rare examples of a *clivis* with a stem and a diagonal line, or of a diagonal line without a stem (both on fol. 77^v).

Figure 1 is a comparison of note shapes in CA 38, CA Impr. XVI C 4, and in the gradual CA 12, taking a chant used both as a gradual of the mass and as a responsory of the office, *Haec dies* for Easter week. The three readings are compared here to the *Graduel neumé*.⁷² In section A, the scribe of CA 12 replaced the *clivis* after the initial neume(s) of *Hec* with a diagonally descending stroke, perhaps because the *clivis* in polyphonic notation would have meant *brevis-longa*, whereas the diagonal line meant *brevis-brevis*. We have noticed this procedure often above. In section B, CA 12 disregards the *tristropha* and underlays the repeated notes, giving each a syllable. This *tristropha* is written *longa-longa-longa* in the first layer of CA 38, but the later sources all remove the stems. Throughout

67. See DE FORD 2005 on the use of these terms.

68. Josquin's *Mittit ad virginem* is recorded as a contrafact, with the text *Mittit ad sterilem* by Gilles Carlier on the sound recording, Guillaume Dufay, *Recollectio festorum Beatae Mariae virginis*, Schola Hungarica, dir. Janka Szendrei and László Dobcsay, Hungaroton HCD 31292.

69. See PLANCHART 2009, with an edition of the polyphonic *Mittit ad virginem* from Trent, Biblioteca, Castello del Buon Consiglio, Ms. 92 on p. 97-99 (with the metric chant).

70. See FALLOWS 2002, p. 105 and 107-108.

71. On this print, see HAGGH 1998; BOUCKAERT 2007, p. 96, no. 60 (color facsimile of fol. 164^v-165^r), and the description on p. 97.

72. I thank Michel Huglo for recommending this chant as ideal for comparison. It appears in CA 38 on fol. 121^r, CA XVI C 4 Impr. on fol. 49^v, CA 12 on fol. 15^v-16^r, and in CARDINE 1966, p. 221.

A

di- es * quam fe- cit.

B

Dó- mi- nus :

CA 38

Hec

di- es

quam fe- cit

do- mi- nus ...

CA XVI C 4

di- es quam fe- cit

do- mi- nus ...

CA 12

di- es quam fe- cit

do- mi- nus ...

CA 12

C

in e- a.

...

quó- ni- am

...

e- jus.

CA 38

in e- a.

CA 38

quo ni- am...

e- ius.

CA XVI C 4

in e- a.

quo ni- am...

e- ius.

CA 12

in e- a...

quo ni- am...

e- ius

Figure 1. Comparison of the musical notation in CA 38, CA Impr. XVI C 4, and CA 12.

the chant, the quilismas of the *Graduel neumé* are of course absent in the manuscripts, but the surrounding notes are kept. At C in fig. 1, notice that CA Impr. XIV C 4 and CA 12 have removed the final melisma on *ea*. At D, CA 12 omits a short formula and does not ligate the neume elements. At E, the scribe of CA 12 is writing down a melody that is very similar but has been decomposed and recomposed into different neumes.

Notice the consistent difference between the notation of a two-note rise in CA 12 and in the other two sources. In section C, the *clivis* and *pes* on the word *ea* are written as a four-note ligature in CA 38 and in CA 12, but not in the printed antiphoner. In CA 12, the *clivis* has become a *porrectus* with an added note.

Also notice the frequent absence of the stems in CA 12 that are used for the *clivis* and *porrectus* in the other sources, but the continuing presence of rhomb-shaped notes in the old manner. Diagonal strokes are rare in the printed antiphoner; the very long diagonal strokes present in CA 12 have their counterpart in the much older manuscript of polyphony CA 11, both in its polyphony and in its chant.⁷³

It is clear from all of these examples that hundreds of years of transmission, even in square notation, produced remarkable and striking differences in the melody of *Haec dies*. The curious features of CA 12 raise the question of what its exemplar might have been, but it is probably a manuscript that is lost or of which we have no record. According to the known fifteenth-century inventories of the Cathedral, there were three graduals in the choir in 1401 and 1461 and only two in 1519.⁷⁴ Presumably these were in square notation, since the two oldest graduals we know from the Cathedral's library, CA 60 and CA 61 (this manuscript written in Lille but brought to Cambrai by the fourteenth century at the very latest), both in Messine notation, were filled with tropes to the ordinary and were very much out of date by that time.

We close with the embellished finals that end many sequences in CA 12, as on fol. 84^v and elsewhere. They may simply be scribal decorations filling the remainder of the line, or they might represent a kind of vocal 'point d'orgue', such as the *organicus punctus* mentioned by Franco of Cologne.⁷⁵ Tinctoris applied the term to the sign of the corona to mean where one polyphonic part was prolonged, while another finished its melody. But at Cambrai and in Dufay's motets, the corona was also used to emphasize the syllables of important words. Thus, the embellished finals of CA 12 may therefore, once again, record the transferral of an idea from contemporary polyphony to the chant.

In conclusion, the manuscripts and printed antiphoner of Cambrai Cathedral examined above confirm that early square notations used for chant do include recognized equivalents for the older neumes. They also suggest an influence of early polyphonic mensural notation on the ways of notating the chant *punctum*. More unusual are the manuscripts CA 11 and 12, which give undisputed evidence of the activity of musically 'bilingual' and even 'trilingual' scribes cognizant of the notations for polyphony as well as for chant. Furthermore, comparison of the work of the scribes of CA 38 and of CA 12 does show a decreasing understanding of the melodic characteristics of chant, the melodies of which were sometimes radically deformed in CA 12. Even if the situation at Cambrai Cathedral was anomalous, it should alert us to the possibilities that the study of later chant notation throughout Europe can offer.

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73. See CURTIS 1992, virtually any folio.

74. HAGGH 1995-3, p. 80-81.

75. STRUNK 1998, p. 242: ... penultimate perfection, where such measure is not observed but rather a point of organum; translation of ... *ubi non attenditur talis mensura, sed magis est ibi organicus punctus*.

BIBLIOGRAPHY

BENT 1989 : Bent Margaret, « The Definition of Simple Polyphony. Some Questions », in Cesare Corsi & Pierluigi Petrobelli eds., *Le Polifonie primitive in Friuli e in Europa. Atti del Congresso internazionale Cividale del Friuli, 22-24 agosto 1980*, Rome, Torre d'Orfeo, 1989, p. 33-42.

BENT 1999 : Bent Margaret, « The Yoxford Credo », in Lewis Lockwood & Edward Roesner eds., *Essays in Musicology: A Tribute to Alvin Johnson*, Philadelphia, The American Musicological Society, 1999, p. 26-51.

BERNHARD 1992 : *Lexicon musicum latinum medii aevi*, Michael Bernhard ed., Munich, Verlag der Bayerischen Akademie der Wissenschaften, 1992.

BERNHARD 1997 : Bernhard Michael, « Die Überlieferung der Neumennamen im Lateinischen Mittelalter », in Michael Bernhard ed., *Quellen und Studien zur Musiktheorie des Mittelalters*, vol. 2, Bayerische Akademie der Wissenschaften, Veröffentlichungen der Musikhistorischen Kommission, 13, Munich, Verlag der Bayerischen Akademie der Wissenschaften, 1997, p. 13-91.

BESSELER 1973 : *Schriftbild der mehrstimmigen Musik*, Heinrich Besseler ed., Musikgeschichte in Bildern, III/5, Leipzig, VEB Deutscher Verlag, 1973.

BISCHOFF 1998 : Bischoff Bernhard, *Katalog der festländischen Handschriften des neunten Jahrhunderts*, I: *Aachen-Lambach*, ed. Birgit Ebersperger, Wiesbaden, Harrassowitz, 1998.

BLACKBURN 2001 : Blackburn Bonnie, « Music Theory and Musical Thinking after 1450 », in Reinhard Strohm & Bonnie Blackburn eds., *Music as Concept and Practice in the Late Middle Ages*, Oxford, Oxford University Press, 2001, p. 301-345.

BLOXAM 1987 : Bloxam Mary Jennifer, *A Survey of Late Medieval Service Books from the Low Countries: Implications for Sacred Polyphony, 1460-1520*, Ph.D. diss., Yale University, 1987.

BLUME & JOHN 2007 : *Elisabeth von Thüringen: Eine Europäische Heilige: Katalog [3. Thüringer Landesausstellung 'Elisabeth von Thüringen - Eine Europäische Heilige', Wartburg - Eisenach, 7. Juli bis 19 November 2007]*, Dieter Blume & Uwe John eds., Petersberg, Imhof, 2007.

BOEREN 1953 : Boeren Petrus Cornelis, « Les plus anciens statuts du diocèse de Cambrai », *Revue de droit canonique*, III (1953), p. 1-32.

BOEREN 1956 : Boeren Petrus Cornelis, *La Vie et les Oeuvres de Guiard de Laon, 1170 env.-1248*, La Haye/Den Haag, Nijhoff, 1956.

BOUCKAERT 2007 : *CANTUS 21. Mémoires du chant. Le livre de musique d'Isidore de Séville à Edmond de Coussemaker*, Bruno Bouckaert ed., Neerpelt, Alamire, 2007.

BRANNER 1977 : Branner Robert, *Manuscript Painting in Paris during the Reign of Saint Louis*, Berkeley, University of California Press, 1977.

BRYDEN & HUGHES 1969 : Bryden John R. & Hughes David G., *An Index of Gregorian Chant*, Cambridge Mass., Harvard University Press, 1969.

CALDWELL 2007 : Caldwell John, « Crossing the Tridentine Divide: Continuity and Change in Liturgical Chant, 1300-1900 », in Terence Bailey & László Dobcsay eds., *Studies in Medieval Chant and Liturgy in Honour of David Hiley*, Budapest and Ottawa, Institute of Mediaeval Music, 2007, p. 105-132.

CARDINE 1966 : Cardine Eugène, *Graduel neumé*, Solesmes, Abbaye Saint-Pierre, 1966.

CARDINE 1982 : Cardine Eugène, *Gregorian Semiology*, trans. Robert Fowells, Solesmes, Abbaye Saint-Pierre, 1982.

CILIBERTI 1990 : Ciliberti Galliano, « Diffusione e trasmissione del Credo nelle fonti mensuralie del tardomedioevo. Nuove evidenze in Italia centrale », *Musica disciplina*, XLIV (1990), p. 57-87.

CURTIS 1991 : Curtis Liane, *Music Manuscripts and Their Production in Fifteenth-Century Cambrai*, Ph.D. diss., University of North Carolina, Chapel Hill, 1991.

CURTIS 1992 : *Cambrai Cathedral Choirbook, mid-15th c.*, Cambrai, Bibliothèque Municipale, Ms. 11, Liane Curtis ed., Peer Alamire, 1992.

CURTIS 1994 : Curtis Liane, « The Origins of Cambrai, Bibliothèque Municipale, Manuscript 6 and its Relationship to Cambrai 11 », *Tijdschrift van de Vereniging voor Nederlandse muziekgeschiedenis*, XLIV (1994), p. 6-35.

CURTIS 1999 : Curtis Liane, « Simon Mellet, Scribe of Cambrai Cathedral », *Plainsong and Medieval Music*, VIII (1999), p. 133-166.

DE FORD 2005 : De Ford Ruth, « On Diminution and Proportion in Fifteenth-Century Music Theory », *JAMS*, LVIII (2005), p. 1-67.

DE VAN 1948 : De Van Guillaume, « A Recently Discovered Source of Early Fifteenth-Century Polyphonic Music: The Aosta Manuscript », *Musica disciplina*, II (1948), p. 5-72.

DELCROIX 1921 : Delcroix Fernand, « La maîtrise de Cambrai », *Mémoires de la Société d'émulation de Cambrai*, LXVIII (1921), p. 71-115.

DELISLE 1868 : Delisle Léopold, *Le Cabinet des manuscrits de la Bibliothèque impériale*, vol. 1, Paris, Bibliothèque nationale, 1868, repr. Hildesheim: Olms, 1978.

DELISLE 1874 : Delisle Léopold, *Le Cabinet des manuscrits de la Bibliothèque impériale*, vol. 2, Paris, Bibliothèque nationale, 1874, repr. Hildesheim: Olms, 1978.

DEROLEZ 2003 : Derolez Albert, *The Palaeography of Gothic Manuscript Books from the Twelfth to the Early Sixteenth Century*, Cambridge, Cambridge University Press, 2003.

DURAND & LAFFITTE 2001 : *Le Trésor de la Sainte Chapelle*, Jannic Durand, Marie-Pierre Laffitte et al. eds., Paris, Réunion des musées nationaux, 2001.

FALLOWS 1976 : Fallows David, « L'origine du ms. 1328 de Cambrai », *Revue de musicologie*, LXII (1976), p. 275-280.

FALLOWS 1987 : Fallows David, *Dufay*, London, Dent, 1987.

FALLOWS 2002 : Fallows David, « French and Italian Accentuation in Josquin's Motets », in Nicoletta Guidobaldi ed., *Regards croisés: musiques, musiciens, artistes et voyageurs entre France et Italie au XV^e siècle*, Paris-Tours, Minerve, 2002, p. 105-118.

FLOTZINGER 2003 : Flotzinger Rudolf, *Leoninus musicus*, Kassel, Bärenreiter, 2003.

GAFFURIUS 1496 : *Practica musicae Franchini Gafori Laudensis*, Milan, Ioannes Petrus de Lomatio, 1496; reprint ed., New York, Broude Bros, 1979.

GAMBER 1968 : Gamber Klaus, *Codices liturgici latini antiquiores*, 2 vols., Fribourg, Universitätsverlag, 1968.

GECSER 2009 : Gecser Ottó, « Lives of St. Elizabeth: Their Rewritings and Diffusion in the Thirteenth Century », *Analecta Bollandiana*, CXXVII (2009), p. 49-107.

Graduel romain : *Le Graduel romain. Édition critique par les moines de Solesmes*, II. *Les sources*, Solesmes, Abbaye Saint-Pierre, 1957.

GROTEFEND 1891 : Grotewold Hermann, *Zeitrechnung des deutschen Mittelalters und der Neuzeit*, 2 vols., Hannover, Hahn, 1891-1898.

HAGGH 1988: Haggh Barbara, *Music, Liturgy and Ceremony in Brussels, 1350-1500*, Ph.D. diss., University of Illinois at Urbana-Champaign, 1988.

HAGGH 1990: Haggh Barbara, « The Celebration of the *Recollectio festorum beate Marie virginis* by Guillaume Du Fay », in Angelo Pompilio et al. eds., *Atti del XIV Congresso della Società Internazionale di Musicologia*, 3. *Free Papers*, Turin, Edizioni di Torino, 1990, p. 559-571.

HAGGH 1992: Haggh Barbara, « Guillaume Du Fay and the Evolution of the Liturgy at Cambrai Cathedral in the Fifteenth Century », in *International Musical Society Study Group 'Cantus Planus'. Papers Read at the Fourth Meeting*, Pécs, Hungary, 1990, Budapest, Hungarian Academy of Sciences, Institute for Musicology, 1992, p. 549-569.

HAGGH 1993: Haggh Barbara, « Medieval Plainchant from Cambrai: A Preliminary List of Hymns, Alleluia Verses, and Sequences », *Revista de musicología*, XVI (1993), p. 2326-2334.

HAGGH 1995-1 : Haggh Barbara, *Two Offices for St. Elizabeth of Hungary*, Musicological Studies, LXV/1, Ottawa, Institute of Mediaeval Music, 1995.

HAGGH 1995-2 : Haggh Barbara, « Crispijne and Abertijne: Two Tenors at the Church of St. Niklaas in Brussels », *Music and Letters*, LXXVI (1995), p. 325-344 (Dutch translation in *Musica Antiqua* [Peer], XI/1 [1994], p. 14-21).

HAGGH 1995-3 : Haggh Barbara, « The Late-Medieval Liturgical Books of Cambrai Cathedral: A Brief Survey of the Evidence », in Janka Szendrei & David Hiley eds., *Laborare fratres in unum. Festschrift László Dobcsay zum 60. Geburtstag*, Hildesheim, Weidmann, 1995, p. 79-85.

HAGGH 1998: Haggh Barbara, « The First Printed Antiphoner of Cambrai Cathedral », in Martin Staehelin ed., *Gestalt und Entstehung musikalischer Quellen im 15. und 16. Jahrhundert*, Wiesbaden, Harrassowitz, 1998, p. 75-110.

HAGGH 2001: Haggh Barbara, « Singers and Scribes in the Secular Churches of Brussels », in Fiona Kisby *et al.* eds., *Music and Musicians in Renaissance Cities and Towns*, Cambridge, Cambridge University Press, 2001, p. 143-156.

HAGGH 2002: Haggh Barbara, « Simple Polyphony from Ghent: Representative or Exceptional? », in Giulio Cattin & Alberto Gallo eds., *Un millennio di polifonia liturgica tra oralità e scrittura*, Venice, Fondazione Levi, 2002, p. 99-117.

HAGGH 2004: Haggh Barbara, « Guillaume Du Fay, Teacher and Theorist, and his Chant for Cambrai Cathedral », in László Dobcsay ed., *Papers Read at the 12th Meeting of the IMS Study Group 'Cantus Planus', Lillafüred/Hungary, 2005 Aug. 23-28*, Budapest, Hungarian Academy of Sciences, Institute for Musicology, 2004, p. 817-844.

HAGGH 2008: Haggh Barbara, « Simon of St. Victor and the Sequence Repertory at Cambrai Cathedral », in Alexander Andrée & Erika Kihlmann eds., *Hortus troporum*, Stockholm, Stockholms Universitet, 2008, p. 85-98.

HAGGH & HUGLO 2004 : Haggh Barbara & Huglo Michel, « *Magnus liber – maius munus* », *Revue de musicologie*, XC (2004), p. 193-230.

HARRAN 1989 : Harran Don, *In Defense of Music: The Case for Music as Argued by a Singer and Scholar of the Late Fifteenth Century*, Lincoln, University of Nebraska Press, 1989.

HAUTCOEUR 1881 : Hautcoeur Édouard, « La liturgie cambrésienne au XVIII^e siècle, et le projet de breviaire pour tous les diocèses des Pays-Bas », *Analectes pour servir à l'histoire ecclésiastique de la Belgique*, XVII (1881), p. 253-325.

HILEY 1989 : Hiley David, « Chant », in Howard Mayer Brown & Stanley Sadie eds., *Performance Practice: Music before 1600*, New York, Norton, 1989.

HONNECOURT 1986 : *Carnets de Villard de Honnecourt, XIII^e siècle*, Alain Erlande-Brandenburg, Régine Pernoud, Jean Gimpel & Roland Bechmann eds., Paris, Stock, 1986.

HUGLO 2004 : Huglo Michel, *Les manuscrits du processionnal*, Répertoire International des Sources Musicales, B XIV 2, Munich, Henle, 2004.

HUGLO 2005 : Huglo Michel, *La théorie de la musique antique et médiévale*, Aldershot, Ashgate, 2005.

HUGLO & PHILLIPS 1985 : Huglo Michel & Phillips Nancy, « Le *De musica* de saint Augustin et l'organisation de la durée musicale du IX^e au XII^e siècle », *Recherches augustiniennes*, XX (1985), p. 117-131.

JACOBSTHAL 1871 : Jacobsthal Gustav, *Mensuralnotenschrift des zwölften und dreizehnten Jahrhunderts*, Berlin, Springer, 1871.

KELLY 1992 : *Plainsong in the Age of Polyphony*, Thomas Forrest Kelly ed., Cambridge, Cambridge University Press, 1992.

LERCH 1987 : Lerch Irmgard, *Fragmente aus Cambrai: Ein Beitrag zur Rekonstruktion einer Handschrift mit spätmittelalterlicher Polyphonie*, Göttinger musikwissenschaftliche Arbeiten, 11, Kassel, Bärenreiter, 1987.

LONG 2008 : Long Sarah, *The Chanted Mass in Parisian Ecclesiastical and Civic Communities, 1480-1540: Local Liturgical Practices in Manuscripts and Early Printed Service Books*, Ph.D. diss., University of Illinois at Urbana, 2008.

LORBLANCHET & VIAL 2006 : *Chansonnier de Montpellier, 13^e-14^e siècles (reproduction intégrale [DVD])*, Hélène Lorblanchet & Mireille Vial eds., Montpellier, Bibliothèque inter-universitaire de Montpellier, 2006.

LÜTOLF 1976 : Lütolf Max, « Eine neue Quelle zur italienischen Kirchenmusik des Trecento », *Analecta musicologica*, XVII (1976), p. 1-22.

MABILLE 1974 : Mabille M., « Les manuscrits d'Etienne [sic] d'Abbeville conservés à la Bibliothèque nationale de Paris », *Bibliothèque de l'École des Chartes*, CXXXII (1974), p. 245-246.

MACIEJEWSKI 2001 : Maciejewski Tadeusz, « Elements of Mensural System in [Polish] Chant Monophony from the Thirteenth to the Seventeenth Century », in Elżbieta Witkowska-Zaremba ed., *Notae musicae artis: Notacja muzyczna w zrodłach polskich XI-XVI wieku*, Kraków Musica Iagellonica, 2001, p. 283-347.

MOLINIER 1891 : Molinier Auguste, *Catalogue général des manuscrits des bibliothèques publiques de France. Départements*, XVII, Paris, Plon, 1891.

MORE 1965 : More Mother Thomas [Mary Berry], « The Performance of Plainsong in the Later Middle Ages and the Sixteenth Century », *Proceedings of the Royal Musical Association*, XCII (1965-1966), p. 121-134.

MUZERELLE 2000 : Muzerelle Denis *et al.*, *Manuscrits datés des bibliothèques de France*, I. Cambrai, Paris, CNRS, 2000.

Paléographie musicale III: Le répons-graduel 'Justus ut palma', reproduit en fac-similé d'après plus de deux cents antiphonaires manuscrits d'origines diverses du IX^e au XVI^e siècle, Paléographie musicale, III, Tournai, 1891.

PARRISH 1978 : Parrish Carl, *The Notation of Medieval Music*, New York, Pendragon Press, 1978.

PARSONEAULT 2001 : Parsonault Catherine, *The Montpellier Codex: Royal Influence and Musical Taste in Late Thirteenth-Century Paris*, Ph.D. diss., University of Texas at Austin, 2001.

PÉRIN & FEFFER 1985 : *La Neustrie. Les pays au nord de la Loire, de Dagobert à Charles le Chauve (VII^e-IX^e siècles)*, Patrick Périn & Laure-Charlotte Feffer eds., Rouen, Musées et Monuments départementaux de Seine-Maritime, 1985.

PLANCHART 1988 : Planchart Alejandro E., « Guillaume Du Fay's Benefices », *Early Music History*, VIII (1988), p. 140-143.

PLANCHART 2009 : Planchart Alejandro E., « The Polyphonic Proses of Guillaume Du Fay », in M. Jennifer Bloxam, Gioia Filocamo & Leofranc Holford-Strevens eds., *'Uno gentile et subtile ingenio'. Studies in Renaissance Music in Honour of Bonnie J. Blackburn*, Turnhout, Brepols, 2009, p. 87-99.

RECKOW 1967 : Reckow Fritz, « *Proprietas* und *perfectio*. Zur Geschichte des Rhythmus, seiner Aufzeichnung und Terminologie im 13. Jahrhundert », *Acta musicologica*, XXXIX (1967), p. 115-143.

REYNOLDS 1988 : Reynolds Robert, « A Gloria-Credo by Gilles Binchois », *Musica disciplina*, XLII (1988), p. 63-71.

ROESNER 1990 : Roesner Edward H., « The Emergence of *Musica mensurabilis* », in Eugene K. Wolf & Edward H. Roesner eds., *Studies in Musical Sources and Style. Essays in Honor of Jan LaRue*, Madison, WI, A-R Editions, 1990, p. 41-74.

SCHREURS 1995 : *An Anthology of Music Fragments from the Low Countries (Middle Ages-Renaissance)*, Eugeen Schreurs ed., Peer, Alamire, 1995.

STEINER 1995 : *Two Cambrai Antiphoners: Cambrai, Mediatheque municipale, 38 and Impr. XVI C 4: Printouts from Two Indices in Machine-Readable Form: A CANTUS Index*, Steiner Ruth *et al.* eds., with an introduction by Barbara Haggh, *Musicological Studies*, 55/4, Ottawa, Institute of Mediaeval Music, 1995.

STRUNK 1998 : *Source Readings in Music History*, Oliver Strunk ed., rev. ed. by Leo Treitler, New York, Norton, 1998.

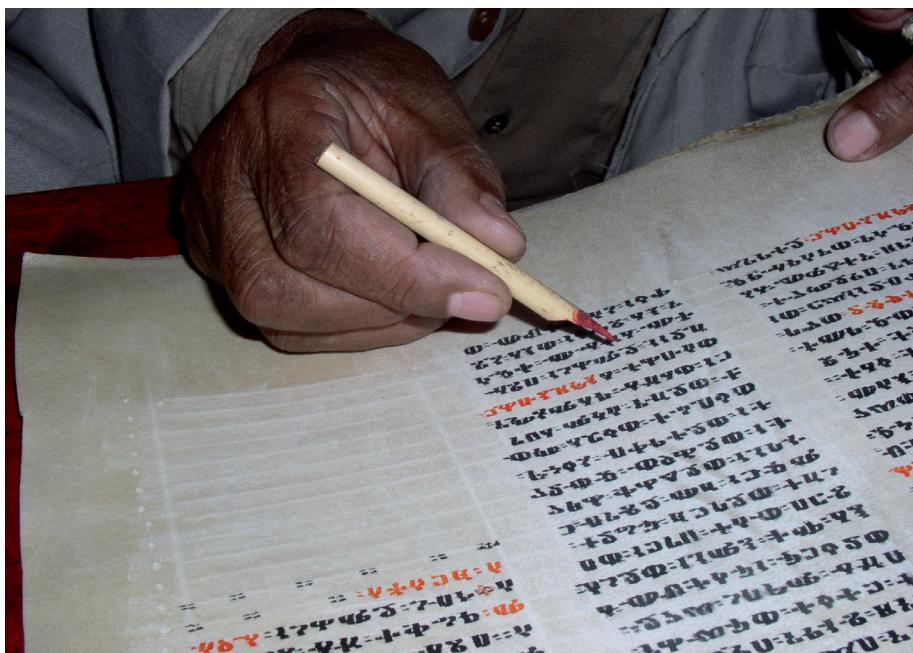


Ethiopian scrolls
(photograph courtesy of the Museum of Natural and Cultural History,
University of Oregon, Portland, Oregon).

PLATE 2



a. Scribe writing with reed pen
(photograph courtesy of Prof. Steve Delamarter, George Fox University, Portland, Oregon).



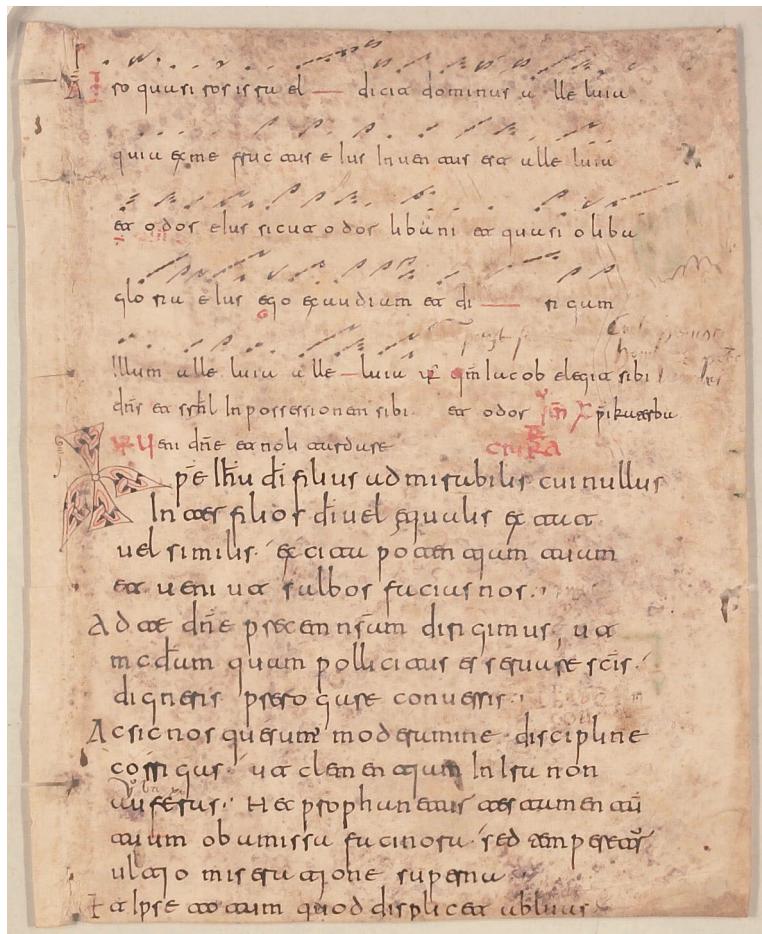
b. Scribe writing with red ink
(photograph courtesy of Prof. Steve Delamarter, George Fox University, Portland, Oregon).



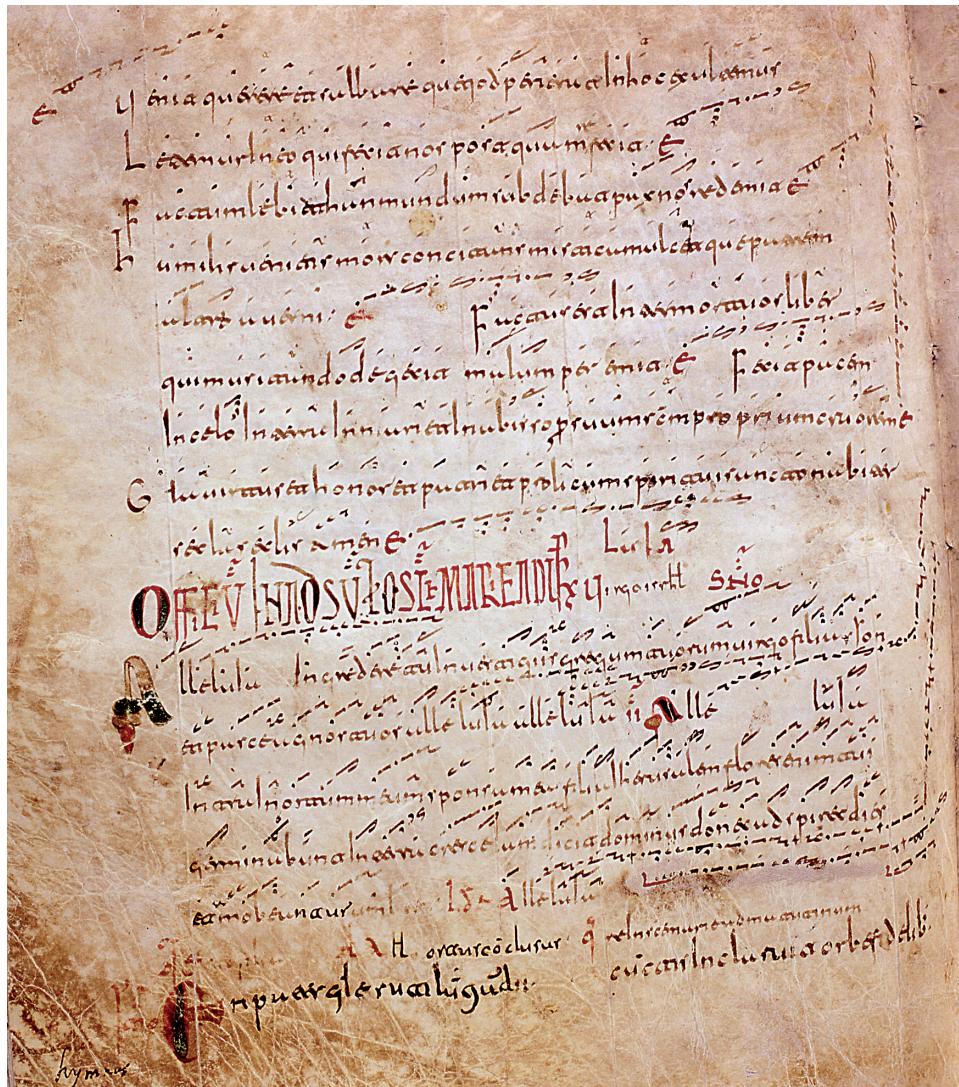
a. The sewing of book gatherings
(photograph courtesy of Prof. Steve Delamarter, George Fox University, Portland, Oregon).



b. Assembling a leather book cover
(photograph courtesy of Prof. Steve Delamarter, George Fox University, Portland, Oregon).



Coimbra, Arquivo da Universidade, IV-3^a Gav. 44 (22), fol. 1^r:
 Antiphon *Ero quasi ros Israel dicit Dominus, Alleluia.*



Toledo, Biblioteca Capitular, ms. 35-7, f. 45v.



Toledo, Biblioteca Capitular, ms. 35-7, 94^v.

Toledo, Museo de los Concilios, ms. 1325, fol. 1^v (142-4271).



Rome, Biblioteca Angelica, ms. 435, fol. 59^v.



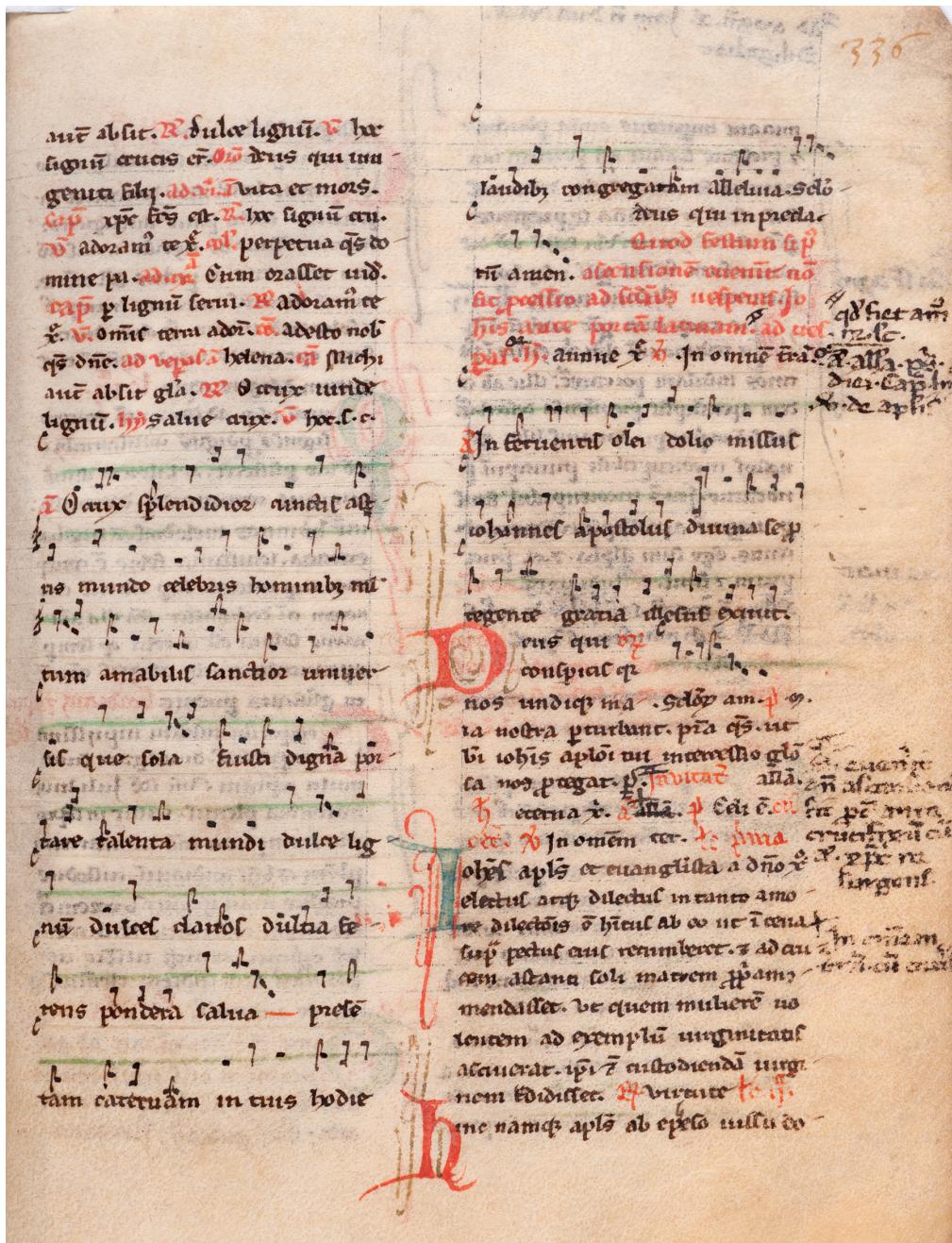
Città del Vaticano, Biblioteca Apostolica, vat. lat. 4756, fol. 70^r
 Scribe B1 and Notator N2 (Advent).



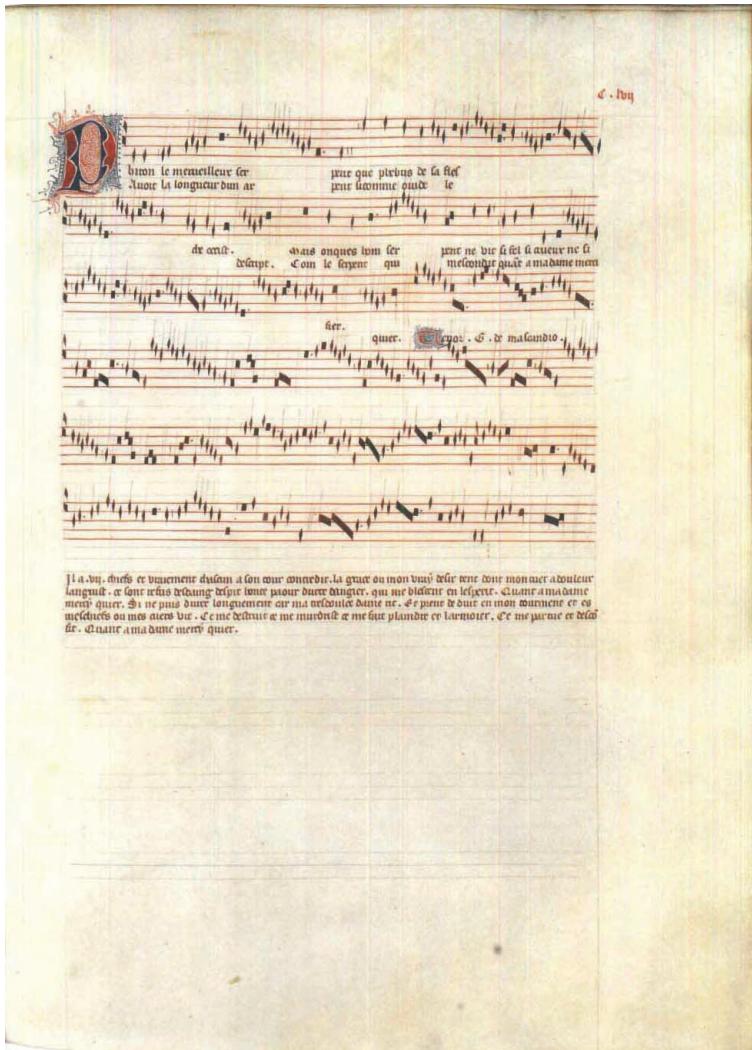
Città del Vaticano, Biblioteca Apostolica, vat. lat. 4756, fol. 183^v
 Scribe B1, writing more hurriedly, and Notator N2 (Maundy Thursday).



Città del Vaticano, Biblioteca Apostolica, vat. lat. 4756, fol. 202^v
 Scribe B2 and Notator N2 (Easter Week).



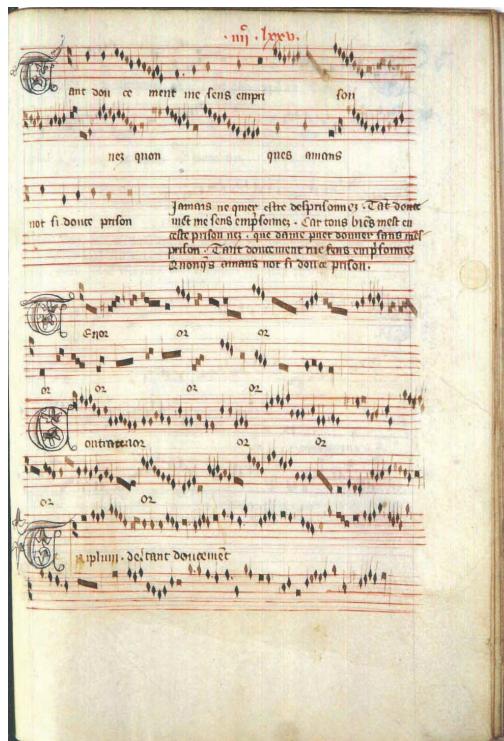
Città del Vaticano, Biblioteca Apostolica, vat. lat. 4756, fol. 336v
Scribe B2 and Notator N1 (Exaltation of the Cross).



Machaut, *Phyton, le mervilleus serpent* (B38) in Paris, BnF, fr. 9221, fol. 157^r.



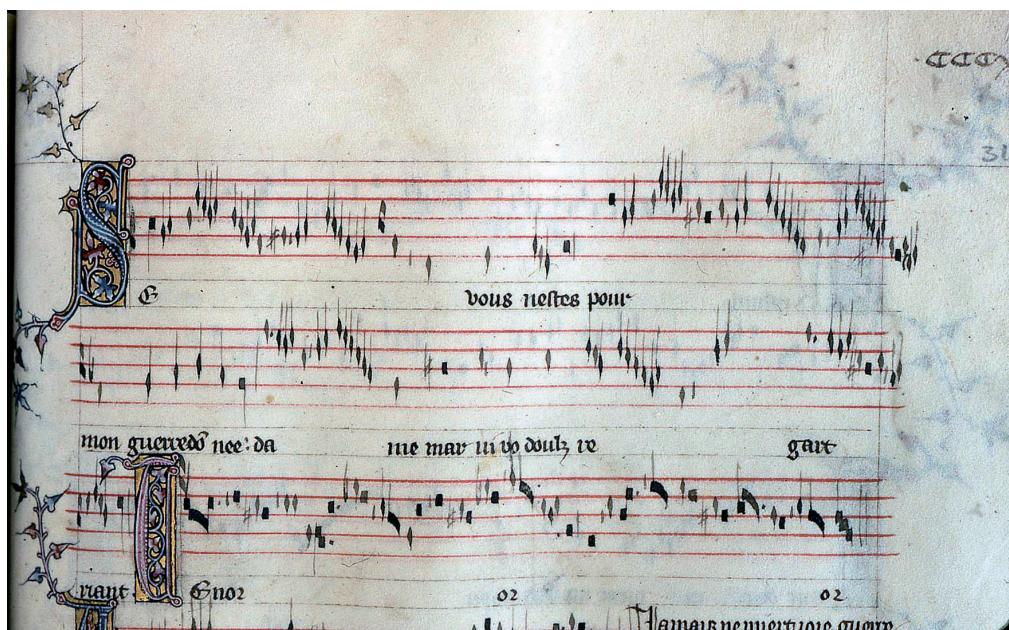
a. Paris, BnF, fr. 1584, fols. 477^v-478^r.



b. Paris, BnF,
fr. 1584, fol. 475^r.



a. Ferrel-Vogüé ms., fols. 317^v-318^r.



b. Ferrel-Vogüé ms., fol. 318^r, detail.



a. Ferrel-Vogüé ms., fol. 289^r, detail.



b. *Christe / Veni / Tribulatio* (M21) in Paris, BnF, fr. 22546, fols. 122^v-123^r.

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